

TA-DK2

SERVICE MANUAL

E Model

Ver. 1.0 2006. 12



SPECIFICATIONS

Amplifier section

Models of area code MY, SP

Stereo Power Output ¹⁾

6 ohms 1 kHz, THD 1 % 70 W + 70 W

Reference Power Output ^{1) 2)}

6 ohms 1 kHz, THD 10 % 110 W/ch

1) Measured under the following conditions:

Area code	Power requirements
MY, SP	230 V AC, 50 Hz

2) Reference power output for front speakers.

Depending on the source, there may be no sound output.

Frequency response

Analog 20 Hz – 50 kHz
+0.5/-2 dB (with tone
bypassed)

Inputs

Analog Sensitivity: 800 mV/
50 kohms
S/N ³⁾: 96 dB
(A, 800 mV ⁴⁾)

Outputs (Analog)

SUB WOOFER Voltage: 2 V/1 kohm

Tone

Gain levels ±6 dB, stepless

3) INPUT SHORT (with tone bypassed).

4) Weighted network, input level.

General

Power requirements

Area code	Power requirements
MY, SP	230 – 240 V AC, 50/60 Hz

Power consumption 165 W

Power consumption (during standby mode)
0.2 W

Dimensions (w/h/d) (Approx.)

430 × 145 × 296 mm
including projecting parts
and controls

Mass (Approx.)

6.7 kg

Supplied accessories

Remote commander RM-AAU011 (1)

R6 (size-AA) batteries (2)

Design and specifications are subject to change
without notice.

• Abbreviation

MY : Malaysia model

SP : Singapore model

INTEGRATED STEREO AMPLIFIER

9-887-496-01

2006L04-1

© 2006. 12

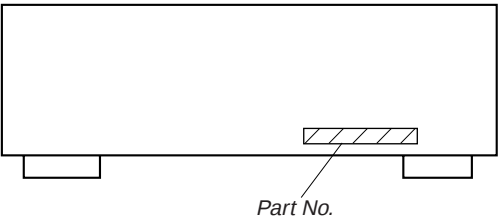
Sony Corporation

Home Audio Division

Published by Sony Techno Create Corporation

SONY®

MODEL IDENTIFICATION
— BACK PANEL —



MODEL	PART No.
MY, SP	2-891-887-0□

- Abbreviation
MY : Malaysia model
SP : Singapore model

TABLE OF CONTENTS

1. GENERAL
Description and location of parts 3

2. DISASSEMBLY
2-1. Case 10
2-2. Front Panel Section 11
2-3. Back Panel Section 11
2-4. DIGITAL Board 12
2-5. MAIN Board 12
2-6. STANDBY Board 13

3. TEST MODE 14

4. DIAGRAMS
4-1. Block Diagram — Audio Section — 15
4-2. Block Diagram — Karaoke Section — 16
4-3. Block Diagram — Display Section — 17
4-4. Block Diagram — Power Section — 18
4-5. Printed Wiring Board — Main Section — 20
4-6. Schematic Diagram — Main Section (1/2) — 21
4-7. Schematic Diagram — Main Section (2/2) — 22
4-8. Printed Wiring Board — Digital Section (1/2) — 23
4-9. Printed Wiring Board — Digital Section (2/2) — 24
4-10. Schematic Diagram — Digital Section (1/2) — 25
4-11. Schematic Diagram — Digital Section (2/2) — 26
4-12. Printed Wiring Boards — Mic Section — 27
4-13. Schematic Diagram — Mic Section — 28
4-14. Printed Wiring Boards — Display Section— 29
4-15. Schematic Diagram — Display Section— 30
4-16. Printed Wiring Board — Power Section — 31
4-17. Schematic Diagram — Power Section — 32

5. EXPLODED VIEWS
5-1. Case Section 37
5-2. Front Panel Section 38
5-3. Back Panel Section 39
5-4. Chassis Section 40

6. ELECTRICAL PARTS LIST 41

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

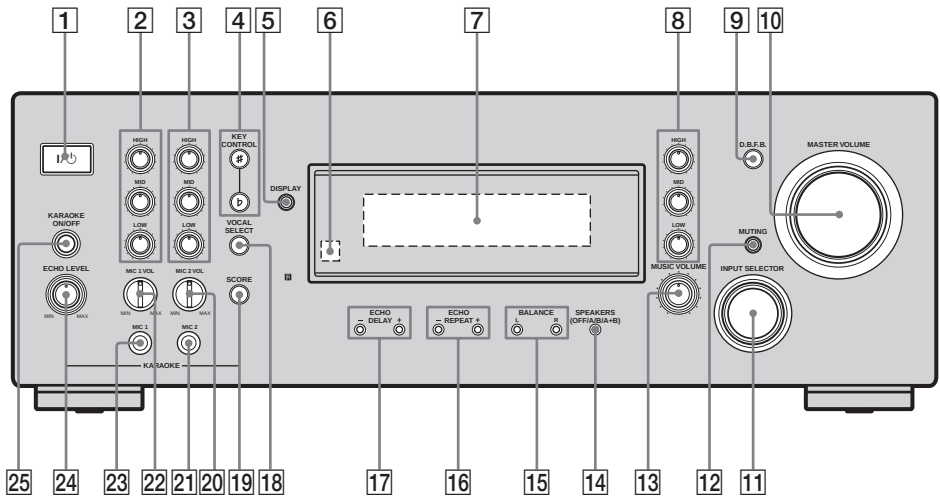
SECTION 1
GENERAL

This section is extracted
from instruction manual.

Getting Started

Description and location of parts

Front panel

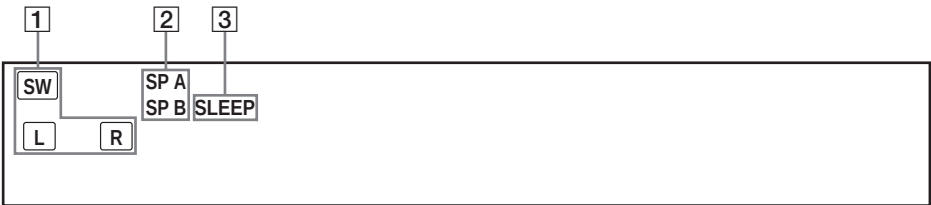


Name	Function
1 I/⏻ (on/standby)	Press to turn the amplifier on or off (page 16, 19, 20).
2 MIC 1 Tone knobs (LOW/MID/HIGH)	Turn to adjust the microphone 1 tone level (page 23).
3 MIC 2 Tone knobs (LOW/MID/HIGH)	Turn to adjust the microphone 2 tone level (page 23).
4 KEY CONTROL #/b	Press to adjust the pitch of the music (page 25).
5 DISPLAY	Press to select information displayed on the display (page 28).
6 Remote sensor	Receives signals from remote commander.
7 Display	The current status of the selected component or a list of selectable items appears here (page 6).

Name	Function
8 Music Tone knobs (LOW/MID/HIGH)	Turn to adjust the music tone level (page 23).
9 D.B.F.B.	Press to activate the Dynamic Bass Feedback (D.B.F.B.) function (page 22).
10 MASTER VOLUME	Turn to adjust the volume level of all speakers at the same time (page 18, 19, 20).
11 INPUT SELECTOR	Turn to select the input source to playback (page 18, 19, 20, 22).
12 MUTING	Press to mute the sound.
13 MUSIC VOLUME	Turn to adjust the music volume level (page 22, 23).

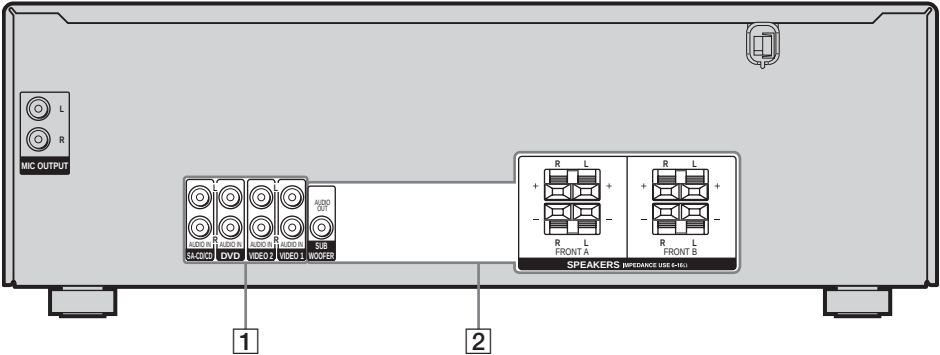
Name	Function
14 SPEAKERS (OFF/A/B/A+B)	Press to select OFF, A, B, A+B of the front speakers (page 17).
15 BALANCE L/R	Press to adjust the front speakers balance level.
16 ECHO REPEAT +/-	Press to adjust the microphone's echo repeat times (page 27).
17 ECHO DELAY +/-	Press to adjust the microphone's echo delay time (page 27).
18 VOCAL SELECT	Press to select the vocal type when singing karaoke.
19 SCORE	Press to activate the scoring system (page 25).
20 MIC 2 VOL	Turn to adjust the microphone 2 volume level (page 22).
21 MIC 2 jack	Connects to a microphone.
22 MIC 1 VOL	Turn to adjust the microphone 1 volume level (page 22).
23 MIC 1 jack	Connects to a microphone.
24 ECHO LEVEL	Turn to adjust the microphone's echo level (page 23, 26).
25 KARAOKE ON/OFF	Press to turn karaoke function on or off (page 22).

About the indicators on the display



Name	Function
1 Playback channel indicators	Indicate that audio signal is output from the front left speaker, front right speaker and sub woofer.
SW	Sub Woofer
L	Front Left
R	Front Right
2 SP A/SP B	Lights up according to the speaker system used. However, these indicators do not light up if the speaker output is turned off.
3 SLEEP	Lights up when the sleep timer is activated (page 28).

Rear panel



1 AUDIO INPUT section

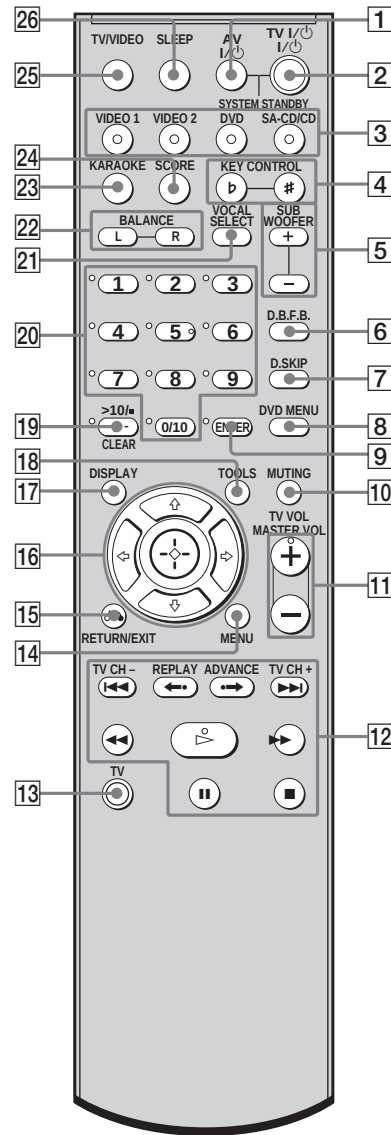
- White (L) AUDIO IN
 Connects to a Super Audio CD or CD player, etc. (page 14, 15).
- Red (R)

2 SPEAKER section

- +
 -
 Connects to front speakers (page 12).
- Connects to sub woofer (page 12).

Remote commander

You can use the supplied remote RM-AAU011 to operate the amplifier and to control the Sony audio/video components that the remote is assigned to operate (page 29).



Name	Function										
1 AV I/O (on/standby)	Press to turn on or off the Sony audio/video components that the remote is assigned to operate (page 29). If you press I/O (2) at the same time, it will turn off the amplifier and other components (SYSTEM STANDBY). Note The function of the AV I/O switch changes automatically each time you press the input buttons (3).										
2 TV I/O (on/standby)	Press TV I/O and TV (13) at the same time to turn the TV on or off.										
I/O (on/standby)	Press to turn the amplifier on or off. To turn off all components, press I/O and AV I/O (1) at the same time (SYSTEM STANDBY).										
3 Input buttons	Press one of the buttons to select the component you want to use. When you press any of the input buttons, the amplifier turns on. The buttons are factory assigned to control Sony components as follows. You can change the button assignments following the steps in "Changing button assignments" on page 29.										
<table><tr><th>Button</th><th>Assigned Sony component</th></tr><tr><td>VIDEO 1</td><td>VCR (VTR mode 3)</td></tr><tr><td>VIDEO 2</td><td>VCR (VTR mode 2)</td></tr><tr><td>DVD</td><td>DVD player</td></tr><tr><td>SA-CD/CD</td><td>Super Audio CD/CD player</td></tr></table>		Button	Assigned Sony component	VIDEO 1	VCR (VTR mode 3)	VIDEO 2	VCR (VTR mode 2)	DVD	DVD player	SA-CD/CD	Super Audio CD/CD player
Button	Assigned Sony component										
VIDEO 1	VCR (VTR mode 3)										
VIDEO 2	VCR (VTR mode 2)										
DVD	DVD player										
SA-CD/CD	Super Audio CD/CD player										
4 KEY CONTROL #/b	Press to adjust the pitch of a music (page 25).										
5 SUB WOOFER +/-	Press to adjust the subwoofer level (page 21).										
6 D.B.F.B.	Press to activate the Dynamic Bass Feedback (D.B.F.B.) function (page 22).										

Name	Function
[7] D.SKIP	Press to skip disc of the CD player or DVD player (multi-disc changer only).
[8] DVD MENU	Press to display the menu of the DVD player on the TV screen. Then, use the control buttons to perform menu operations.
[9] ENTER	Press to enter the value after selecting a channel, disc or track using the numeric buttons.
[10] MUTING	Press to mute the sound (page 18).
[11] TV VOL +^{a)}/–	Press TV VOL +/– and TV ([13]) at the same time to adjust the TV volume level.
MASTER VOL +^{a)}/–	Press to adjust the volume level of all speakers at the same time.
[12] ◀◀/▶▶	Press to skip tracks of the CD player or DVD player.
REPLAY ◀◀/ ADVANCE ▶▶	Press to replay the previous scene or fast forward the current scene of the VCR or DVD player.
◀◀/▶▶	Press to – search tracks in the forward/backward direction of the DVD player. – fast forward/rewind of the VCR, CD player, MD deck, or tape deck.
▷^{a)}	Press to start playback of the VCR, CD player or DVD player.
 	Press to pause playback of the VCR, CD player or DVD player.
■	Press to stop playback of the VCR, CD player or DVD player.
TV CH +/–	Press TV CH +/– and TV ([13]) at the same time to select preset TV channels.
[13] TV	Press TV and the button you want at the same time to activate the buttons with orange printing.

Name	Function
[14] MENU	Press to display the menus of the VCR, DVD player, or satellite tuner on the TV screen. Then, use the control buttons to perform menu operations.
[15] RETURN/ EXIT ↶	Press to – return to the previous menu. – exit the menu while the menu or on-screen guide of the VCR, DVD player, or satellite tuner is displayed on the TV screen.
[16] Control buttons	After pressing DVD MENU ([8]), or MENU ([14]), press the control button ▲ , ▼ , ◀ or ▶ to select the settings. When you press DVD MENU or MENU, press the control button to enter the selection.
[17] DISPLAY	Press to select information displayed on the TV screen of the VCR, satellite tuner, CD player or DVD player.
[18] TOOLS	Press to display options applicable to the entire disc (e.g. disc protection), or multiple items on a list menu (e.g. erasing multiple titles).
[19] -/--	Press -/-- and TV ([13]) at the same time to select the channel entry mode, either one or two digits of the TV.
>10/•	Press to select – track numbers over 10 of the VCR, satellite tuner or CD player. – channel numbers of the Digital CATV terminal.
CLEAR	Press to – clear a mistake when you press the incorrect numeric button. – return to continuous playback, etc. of the satellite tuner or DVD player.

continued — **9^{GB}**

Name	Function
20 Numeric buttons (number 5^{a)})	Press to – select track numbers of the CD player or DVD player. Press 0/10 to select track number 10. – select channel numbers of the VCR or satellite tuner. Press the numeric buttons and TV (13) at the same time to select the TV channels.
21 VOCAL SELECT	Press to select the vocal cut parameter when you sing a song (page 24).
22 BALANCE L/R	Press to adjust the front speakers balance level (page 21).
23 KARAOKE	Press to activate the karaoke function.
24 SCORE	Press to show the score after you sing a song (page 25). Note The scoring system will only activate when you press SCORE. If you press SCORE again, it will show the score marks.
25 TV/VIDEO	Press TV/VIDEO and TV (13) at the same time to select the input signal (TV input or video input).
26 SLEEP	Press to activate the Sleep Timer function and the duration which the amplifier turns off automatically.

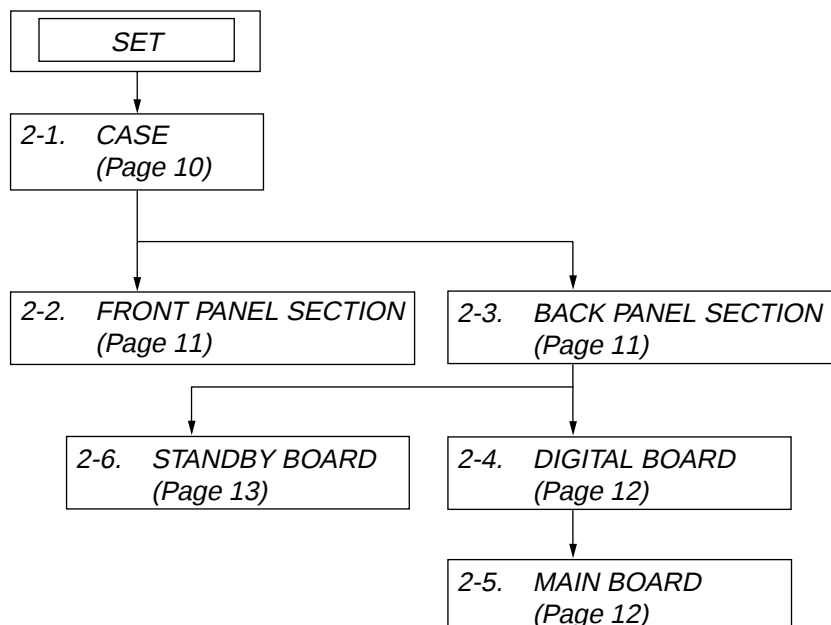
^{a)}The number 5, MASTER VOL +, TV VOL +, and  buttons have tactile dots. Use the tactile dots as references when operating the amplifier.

Notes

- Some functions explained in this section may not work depending on the model.
- The above explanation is intended to serve as an example only. Therefore, depending on the component, the above operation may not be possible or may operate differently than described.

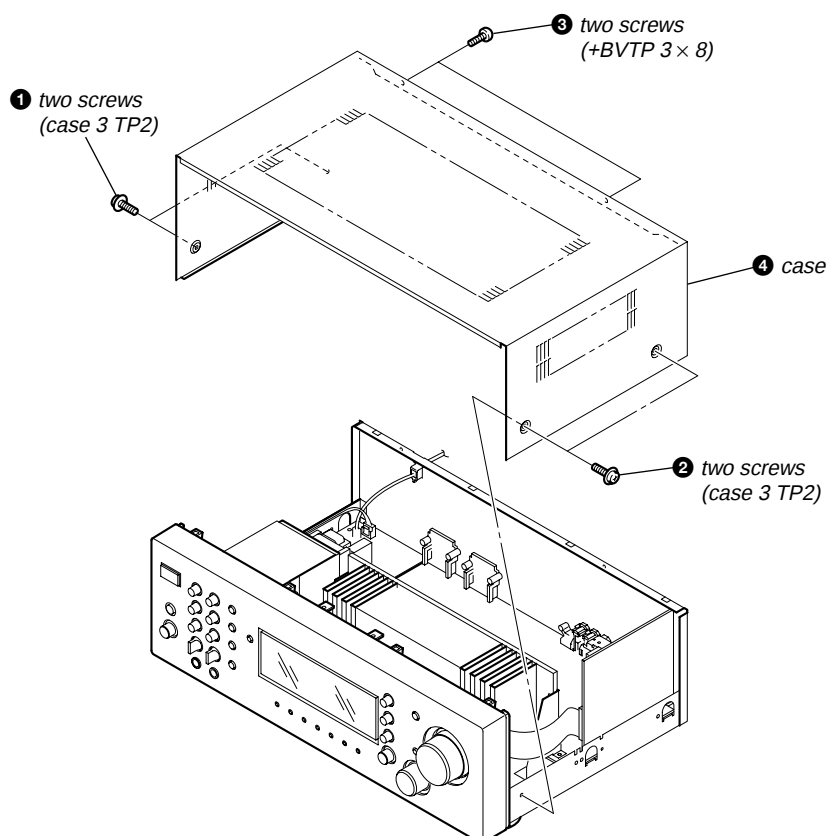
SECTION 2 DISASSEMBLY

Note : This set can be disassemble according to the following sequence.

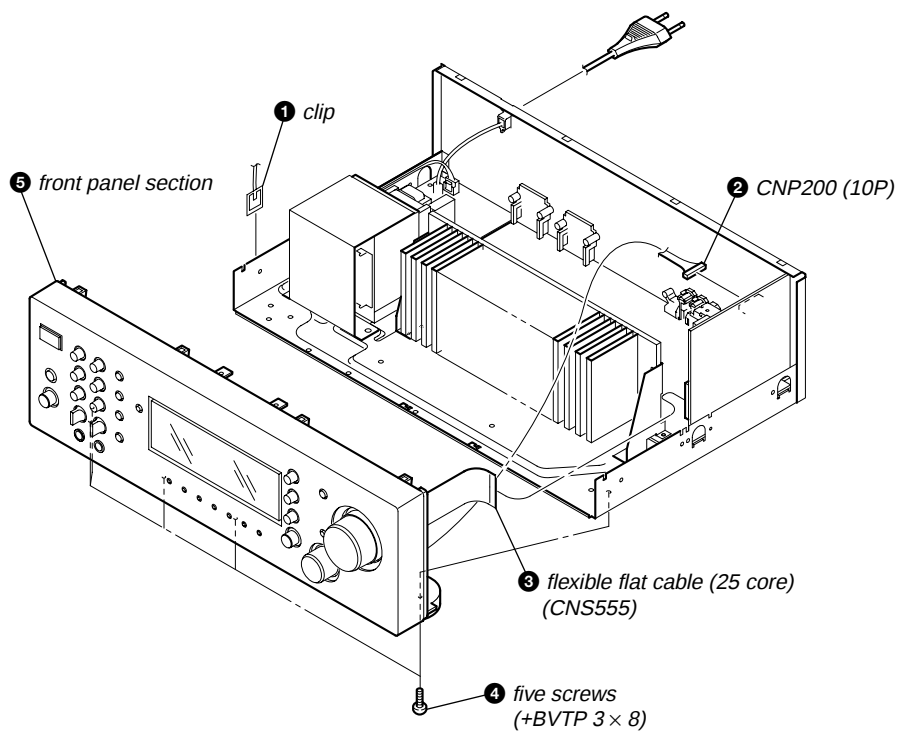


Note : Follow the disassembly procedure in the numerical order given.

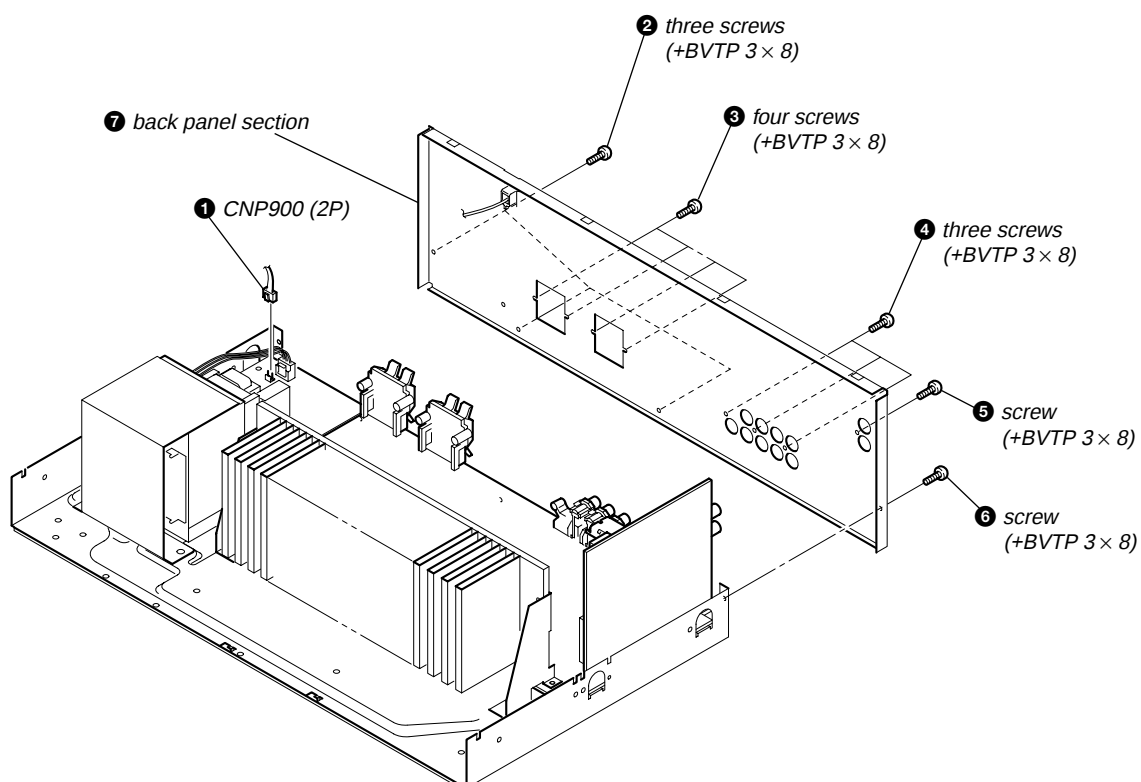
2-1. CASE



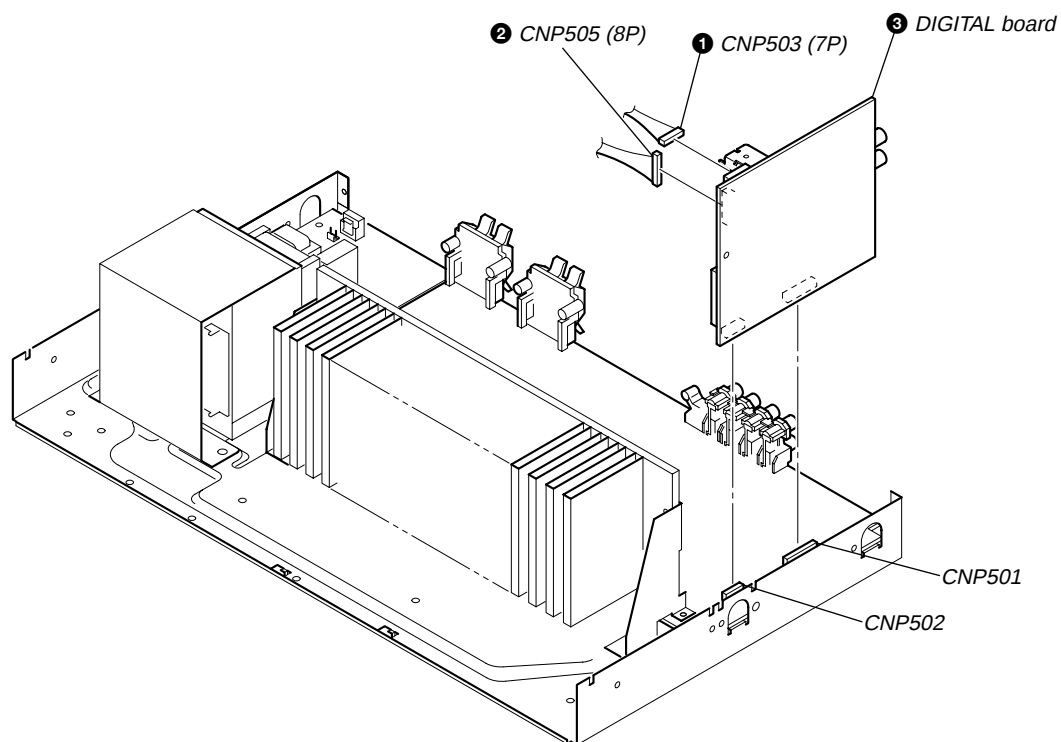
2-2. FRONT PANEL SECTION



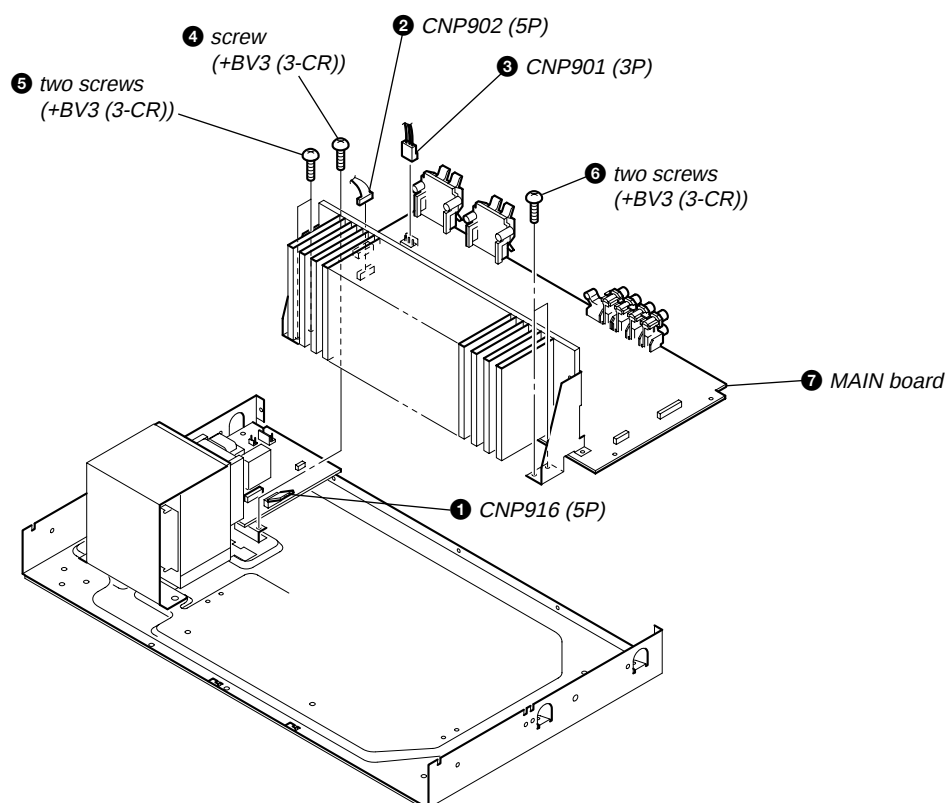
2-3. BACK PANEL SECTION



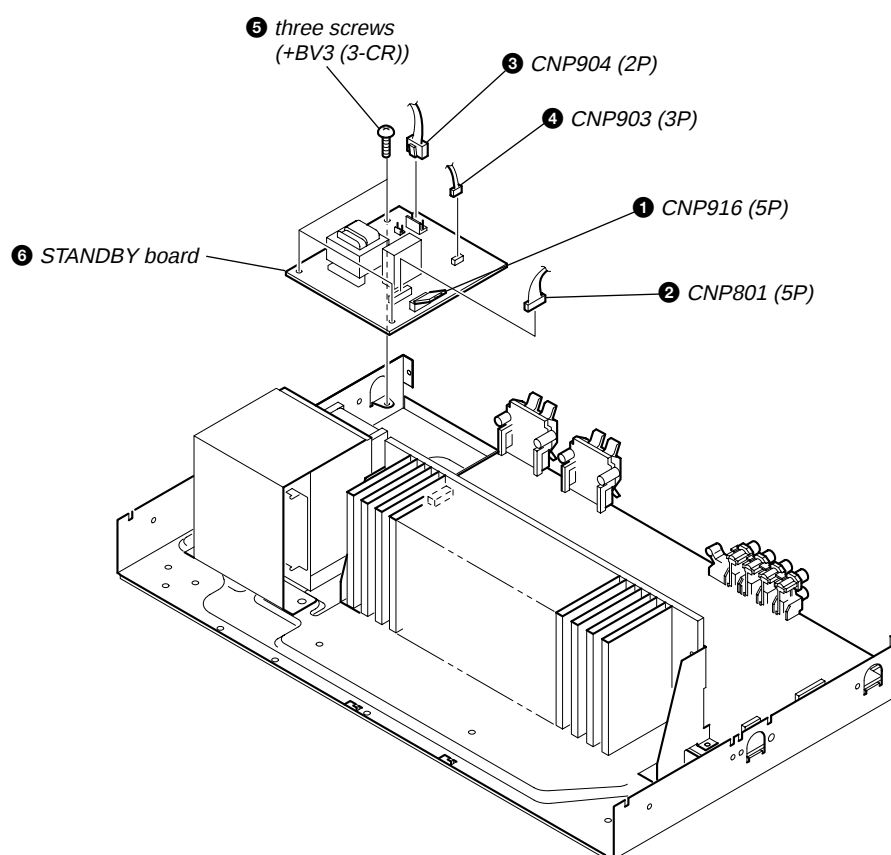
2-4. DIGITAL BOARD



2-5. MAIN BOARD



2-6. STANDBY BOARD



SECTION 3 TEST MODE

VACUUM FLUORESCENT DISPLAY TEST MODE

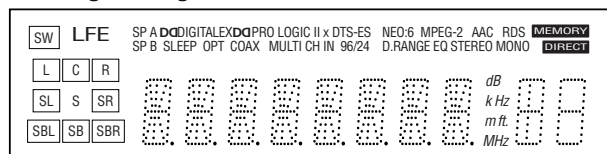
* All fluorescent segments are tested.

When this test is activated, all segments light on at the same time, then each segment lights on one after another.

* Procedure:

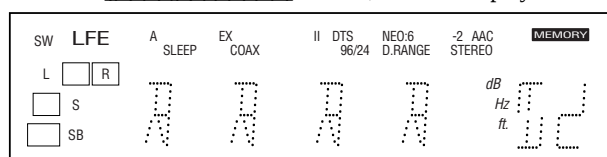
While depressing the **[VOCAL SELECT]** and the **[BALANCE R]** buttons simultaneously, press the **[I/⏻]** button to turn on the main power.

1. ALL segments light on.



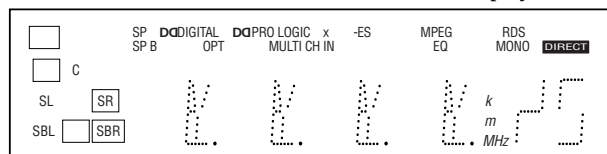
[KARAOKE ON/OFF], **[VOCAL SELECT]**, **[SCORE]** and **[D.B.F.B.]** LEDs light on.

2. Turn the **[INPUT SELECTOR]** control, confirm display.



[KARAOKE ON/OFF] and **[SCORE]** LEDs light on.

3. Turn the **[INPUT SELECTOR]** control, confirm display.



[VOCAL SELECT] and **[D.B.F.B.]** LEDs light on.

4. Turn the **[INPUT SELECTOR]** control, all segments and all LEDs light off.

SOFTWARE VERSION DISPLAY MODE

* The software version is displayed.

* Procedure:

While depressing the **[ECHO DELAY +]** and the **[BALANCE R]** buttons simultaneously, press the **[I/⏻]** button to turn on the main power.

The model name, destination and the software version are displayed for a moment.

KEY CHECK MODE

* Button check

* Procedure:

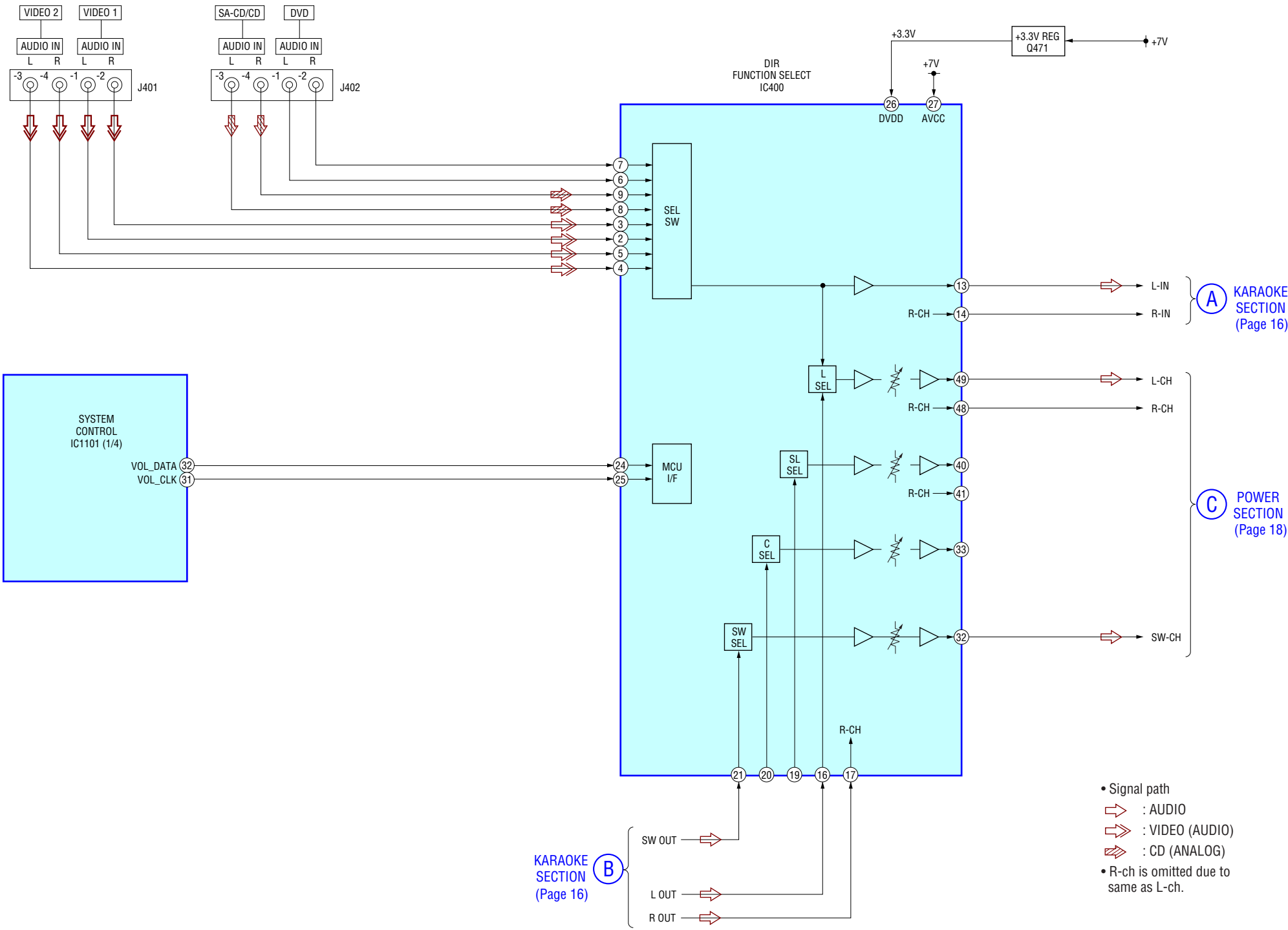
While depressing the **[ECHO DELAY -]** and the **[BALANCE R]** buttons simultaneously, press the **[I/⏻]** button to turn on the main power.

Either the message "REST 15" appears.

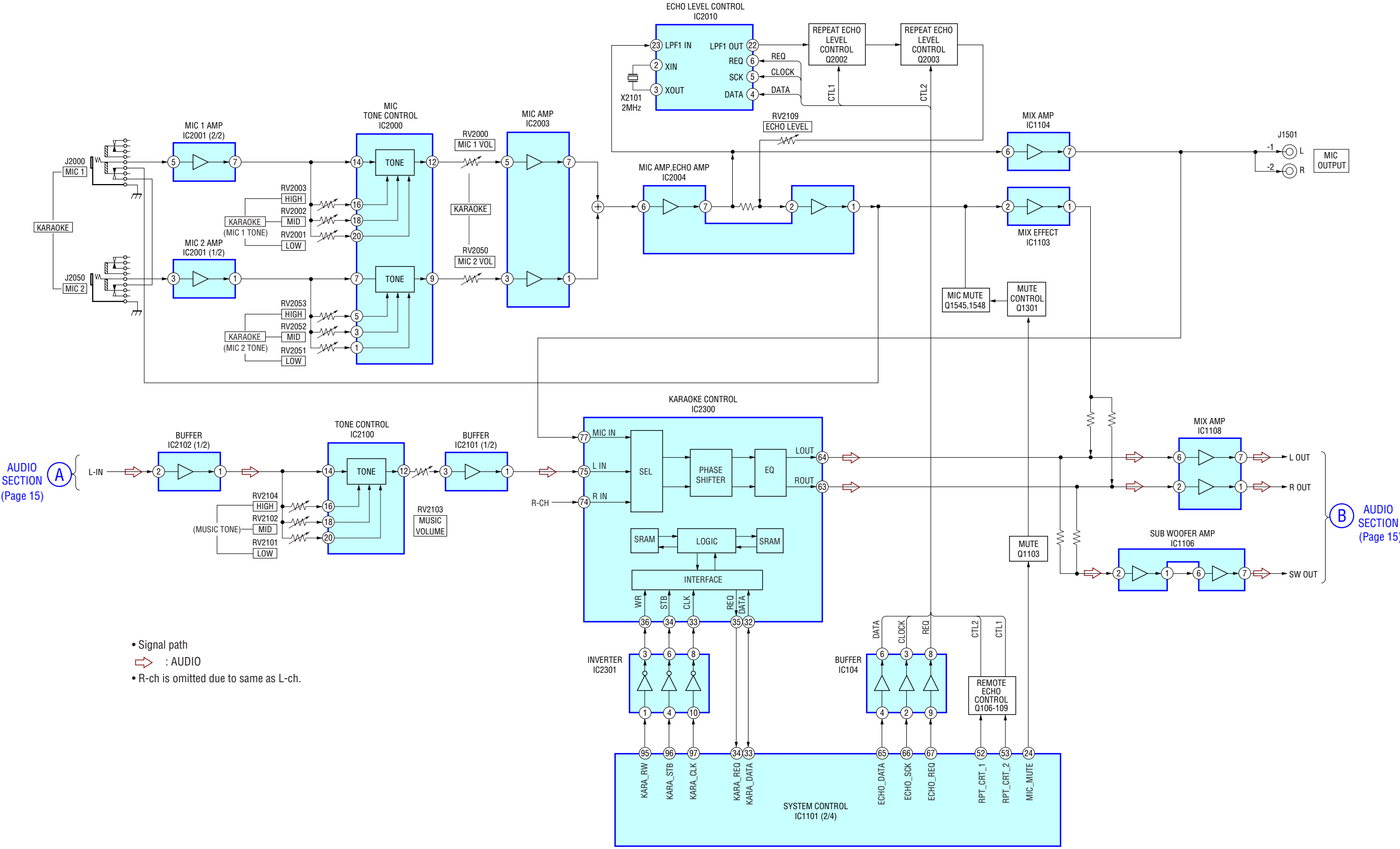
Every pressing of any button other than the **[I/⏻]** counts down the buttons. The buttons which are already counted once are not counted again. When all buttons are pressed "REST 00" appears.

SECTION 4
DIAGRAMS

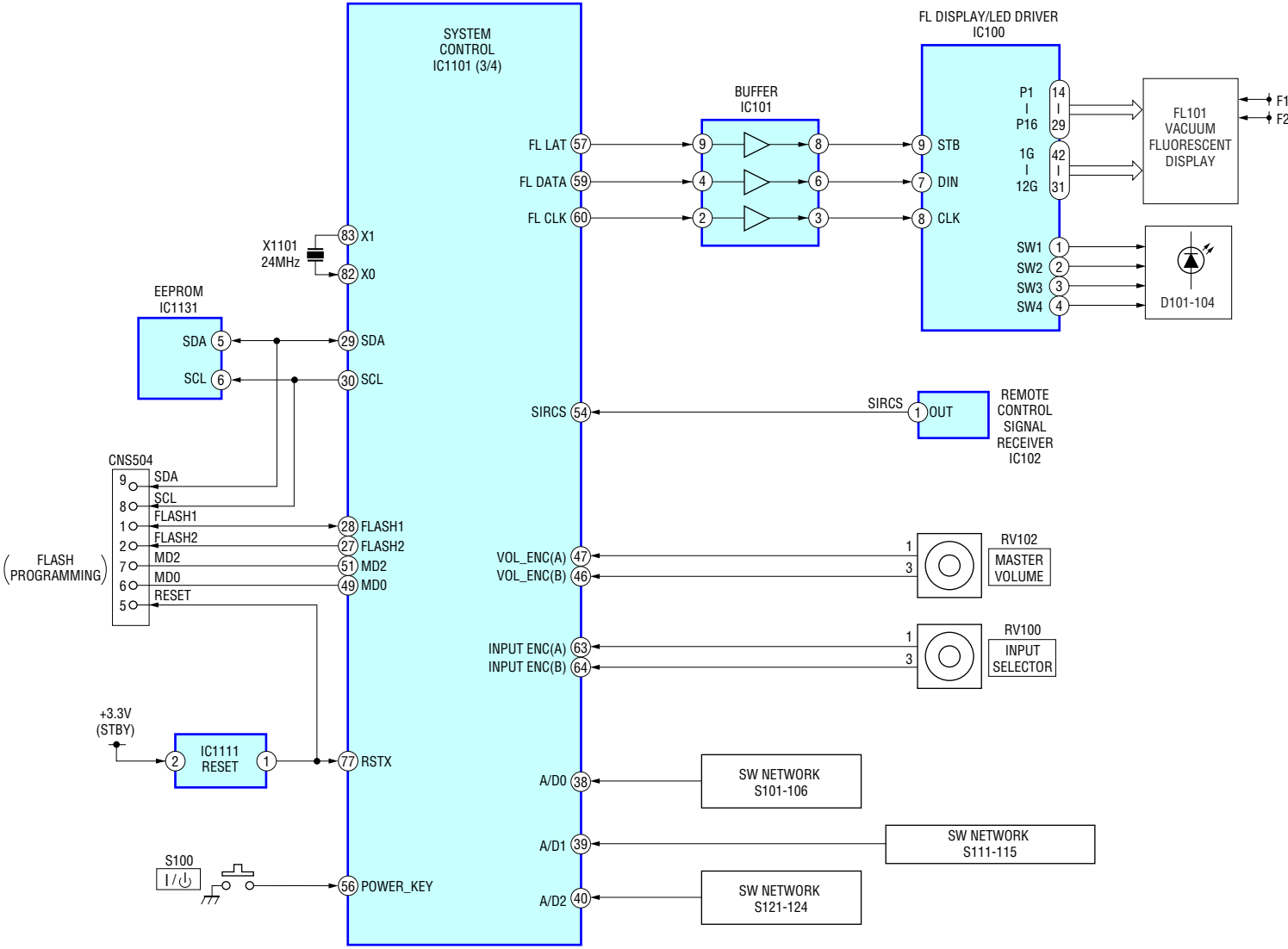
4-1. BLOCK DIAGRAM — AUDIO SECTION —



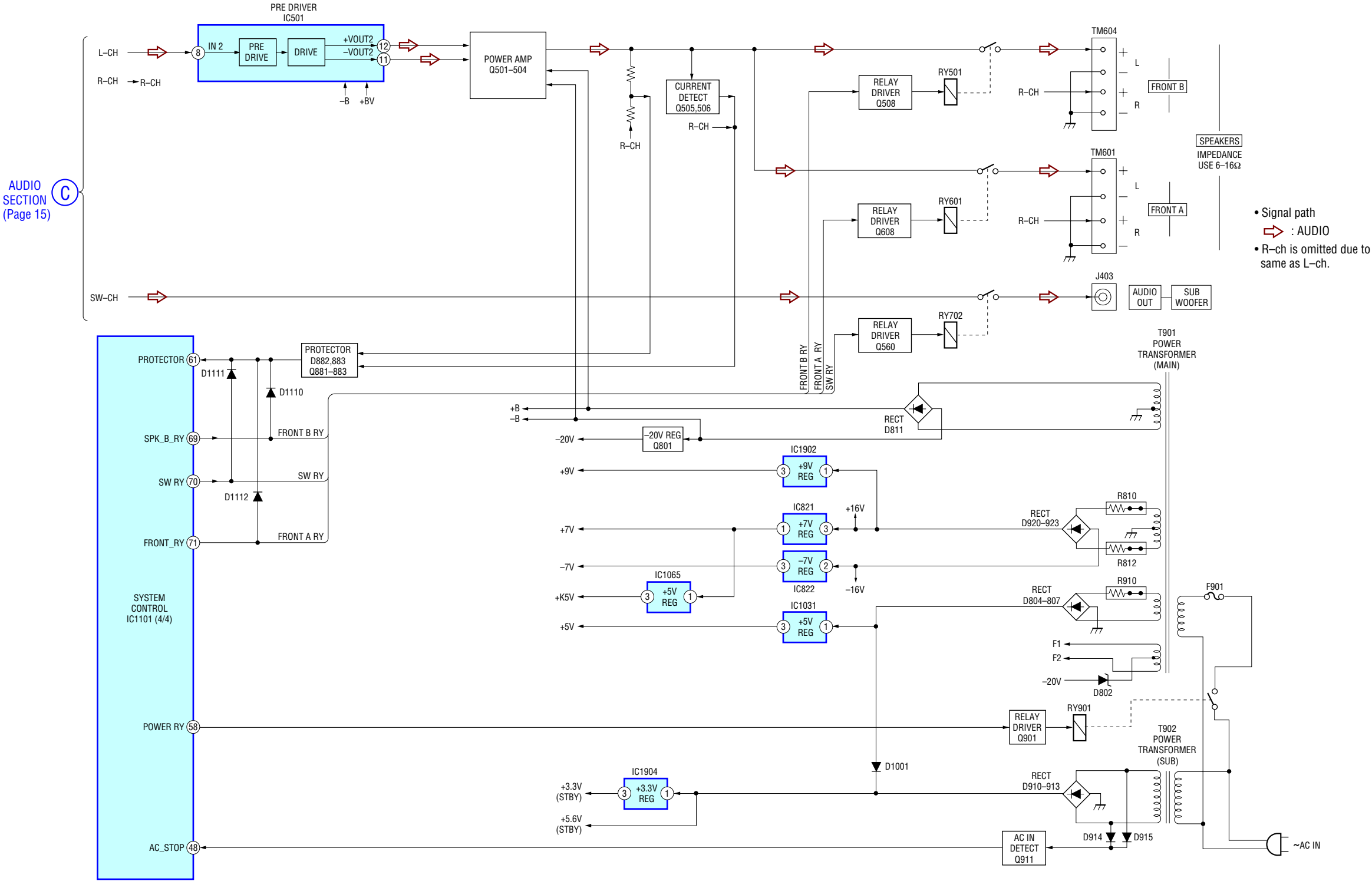
4-2. BLOCK DIAGRAM — KARAOKE SECTION —



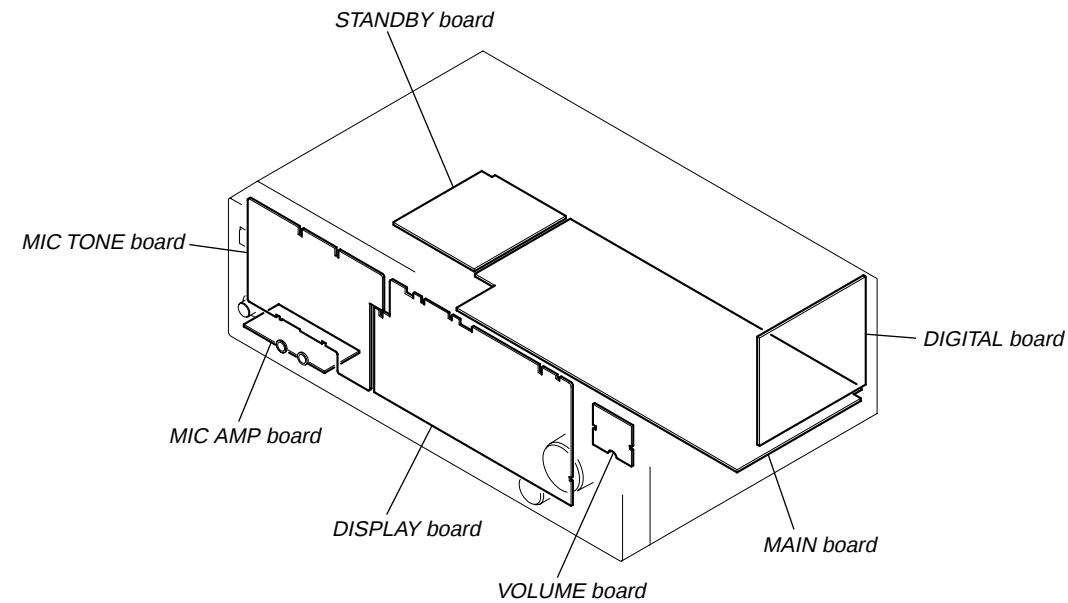
4-3. BLOCK DIAGRAM — DISPLAY SECTION —



4-4. BLOCK DIAGRAM — POWER SECTION —

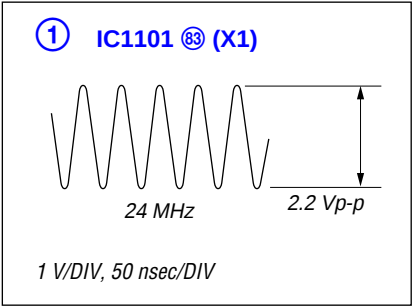


• Circuit Boards Location

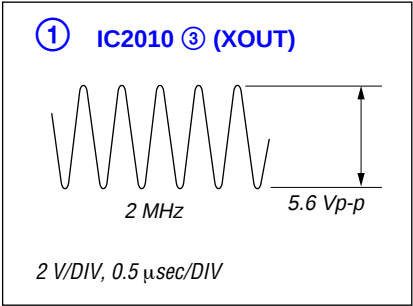


• Waveforms

— DIGITAL Board (2/2) —



— MIC TONE Board —



THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

for schematic diagram:

- All capacitors are in μF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}W$ or less unless otherwise specified.
- Δ : internal component.
- : nonflammable resistor.
- : fusible resistor.
- : panel designation.

Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

for printed wiring boards:

- : parts extracted from the component side.
- Δ : internal component.
- : Pattern from the side which enables seeing.

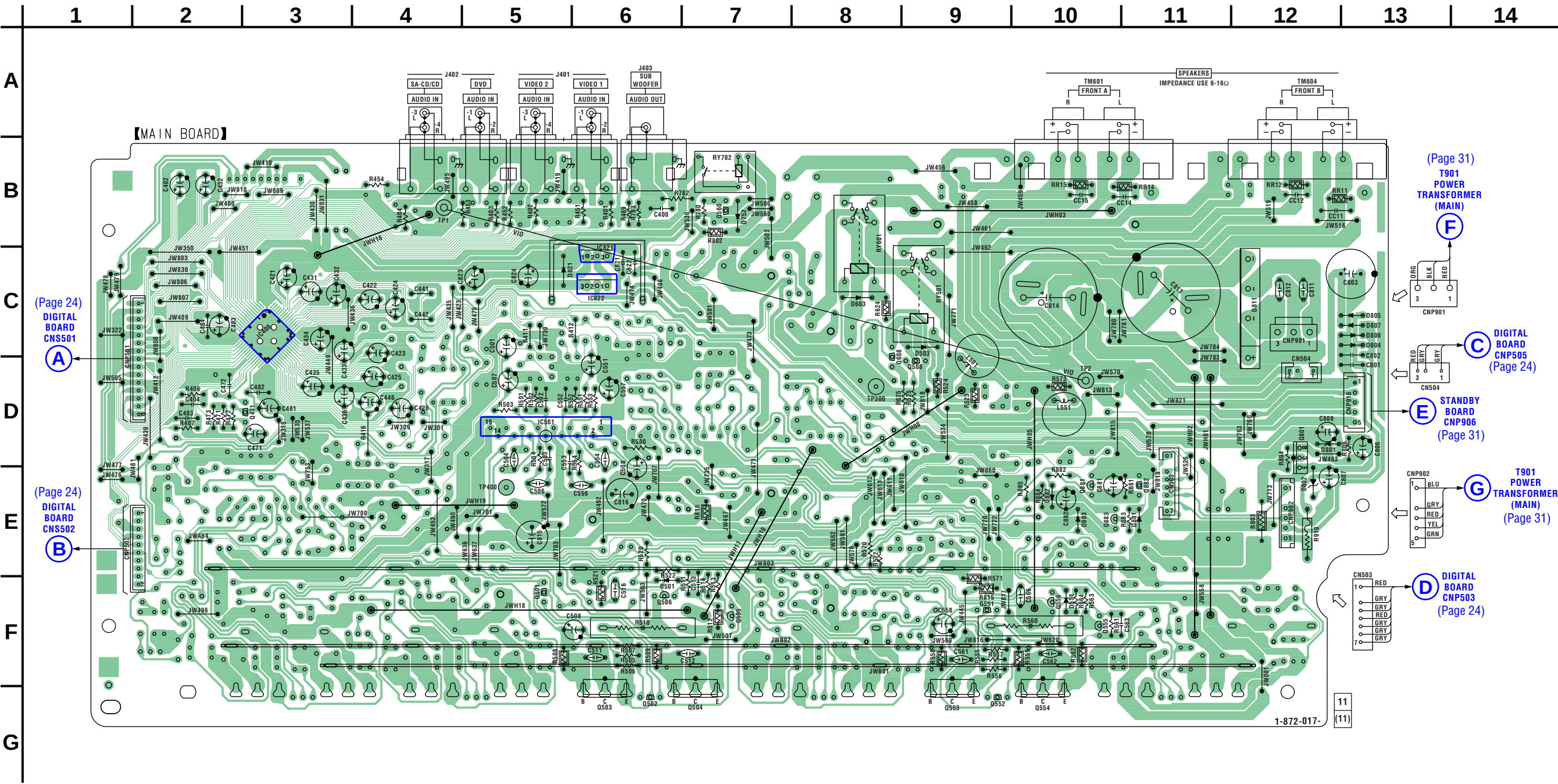
Caution:
Pattern face side: Parts on the pattern face side seen from the (Side B) pattern face are indicated.
Parts face side: Parts on the parts face side seen from the (Side A) parts face are indicated.

Legend:

- : B+ Line.
- : B- Line.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- no mark : DVD
- Voltages are taken with a VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- : AUDIO
- : VIDEO (AUDIO)
- : CD (ANALOG)

Diagram:

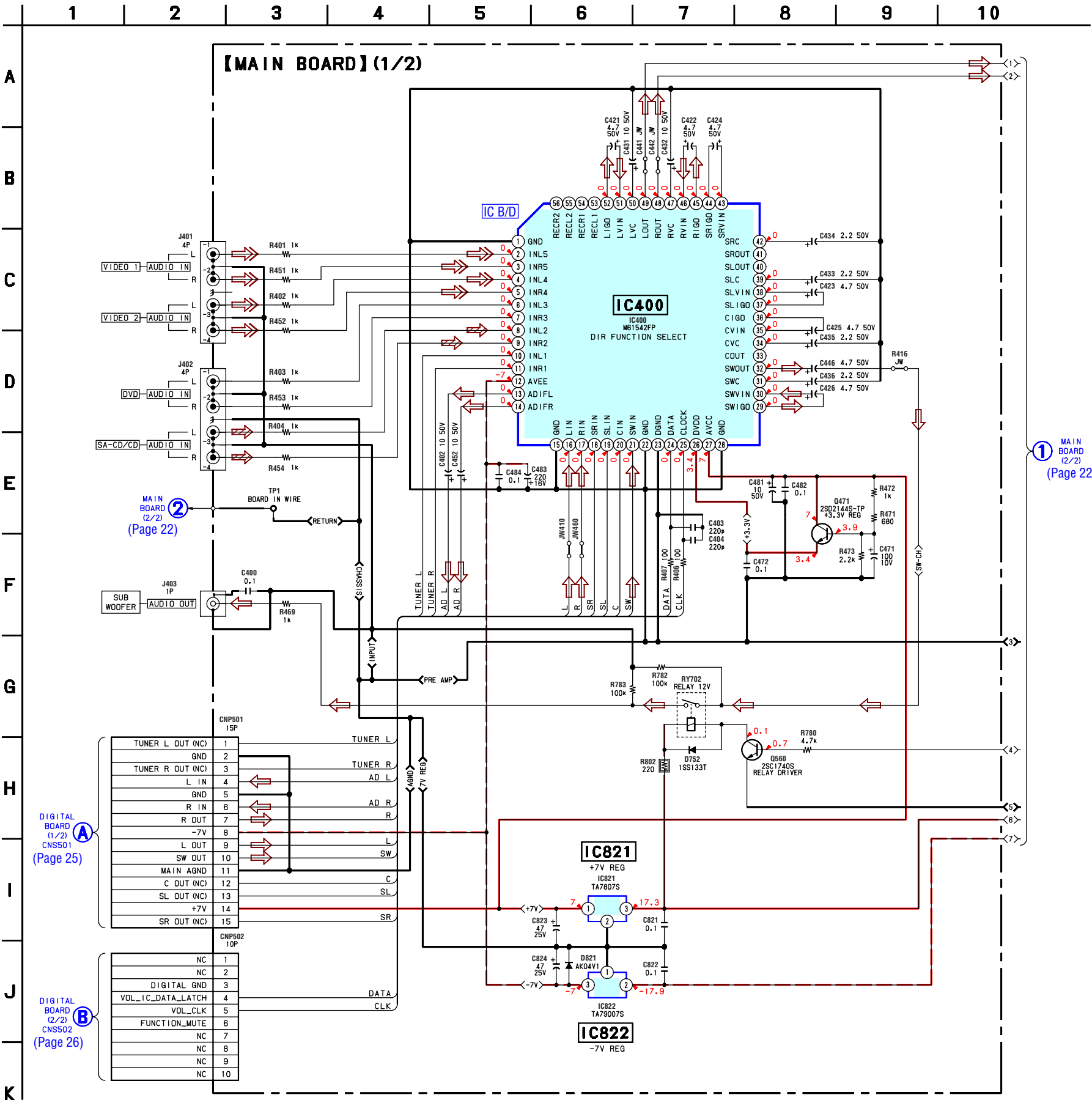
4-5. PRINTED WIRING BOARD — MAIN SECTION — • Refer to page 19 for Circuit Boards Location. : Uses unleaded solder.



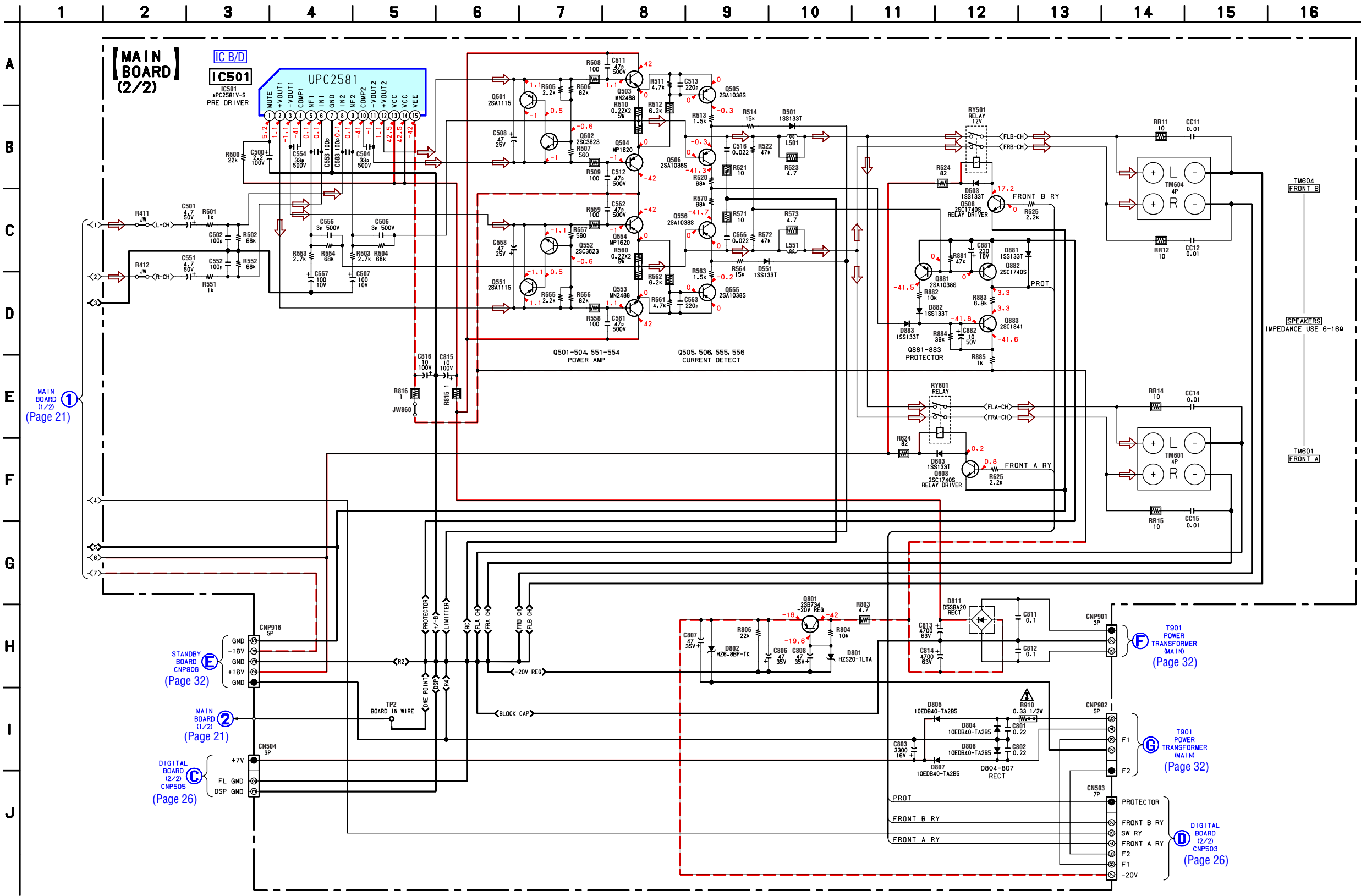
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D501	F-6	D882	E-10	Q506	F-6
D503	C-9	D883	E-10	Q508	D-9
D551	F-10			Q551	F-9
D603	C-8	IC400	C-3	Q552	G-9
D752	B-7	IC501	D-5	Q553	G-9
D801	D-12	IC821	C-6	Q554	G-10
D802	E-12	IC822	C-6	Q555	F-10
D804	C-13			Q556	F-10
D805	C-13	Q471	D-3	Q560	B-7
D806	C-13	Q501	F-5	Q608	D-8
D807	C-13	Q502	G-6	Q801	D-12
D811	C-12	Q503	G-6	Q881	E-10
D821	C-5	Q504	G-7	Q882	E-11
D881	E-11	Q505	F-7	Q883	E-10

4-6. SCHEMATIC DIAGRAM — MAIN SECTION (1/2) — • Refer to page 33 for IC Block Diagram.



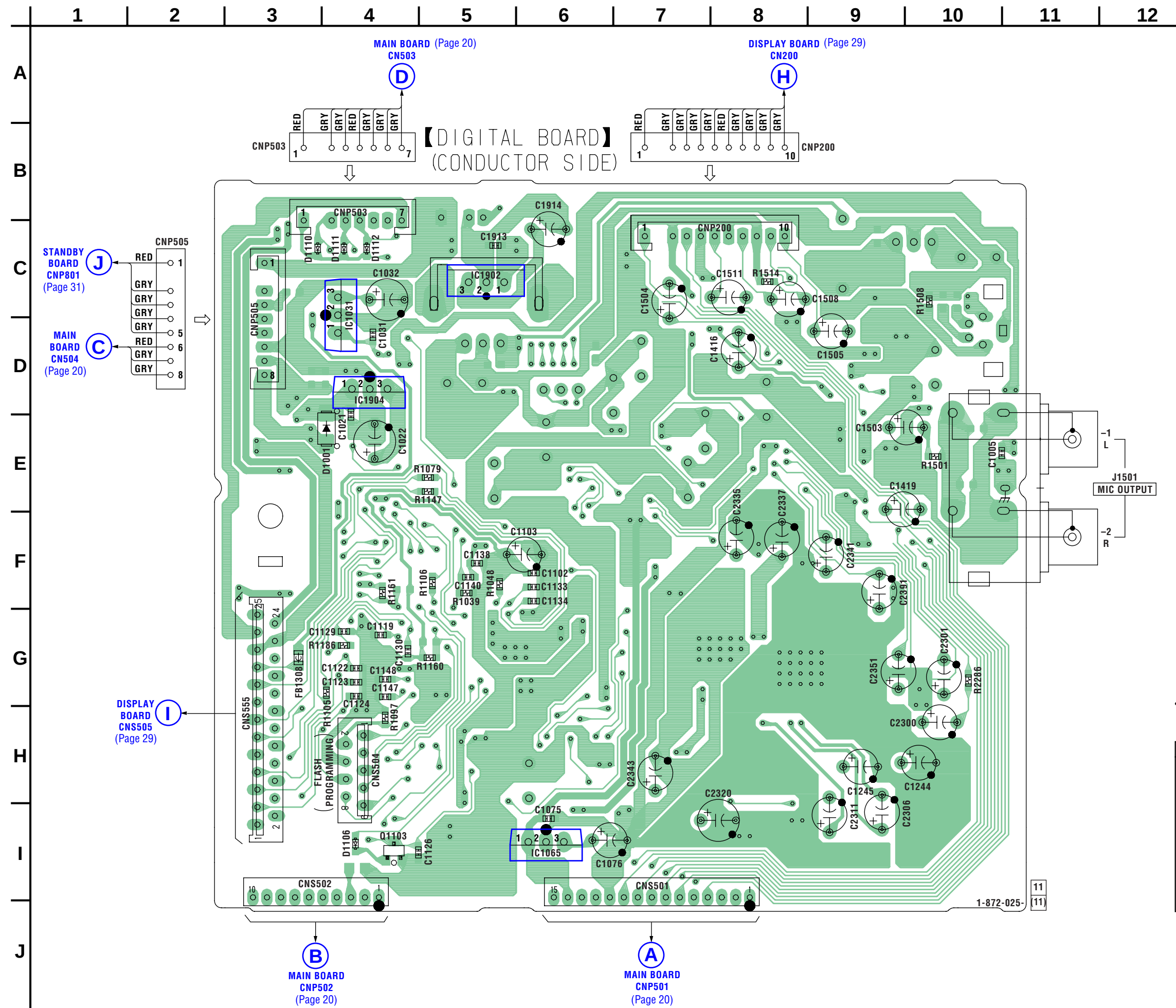
4-7. SCHEMATIC DIAGRAM — MAIN SECTION (2/2) — • Refer to page 33 for IC Block Diagram.



4-8. PRINTED WIRING BOARD — DIGITAL SECTION (1/2) — • Refer to page 19 for Circuit Boards Location. : Uses unleaded solder.

[illegible]

4-9. PRINTED WIRING BOARD — DIGITAL SECTION (2/2) — • Refer to page 19 for Circuit Boards Location. : Uses unleaded solder.

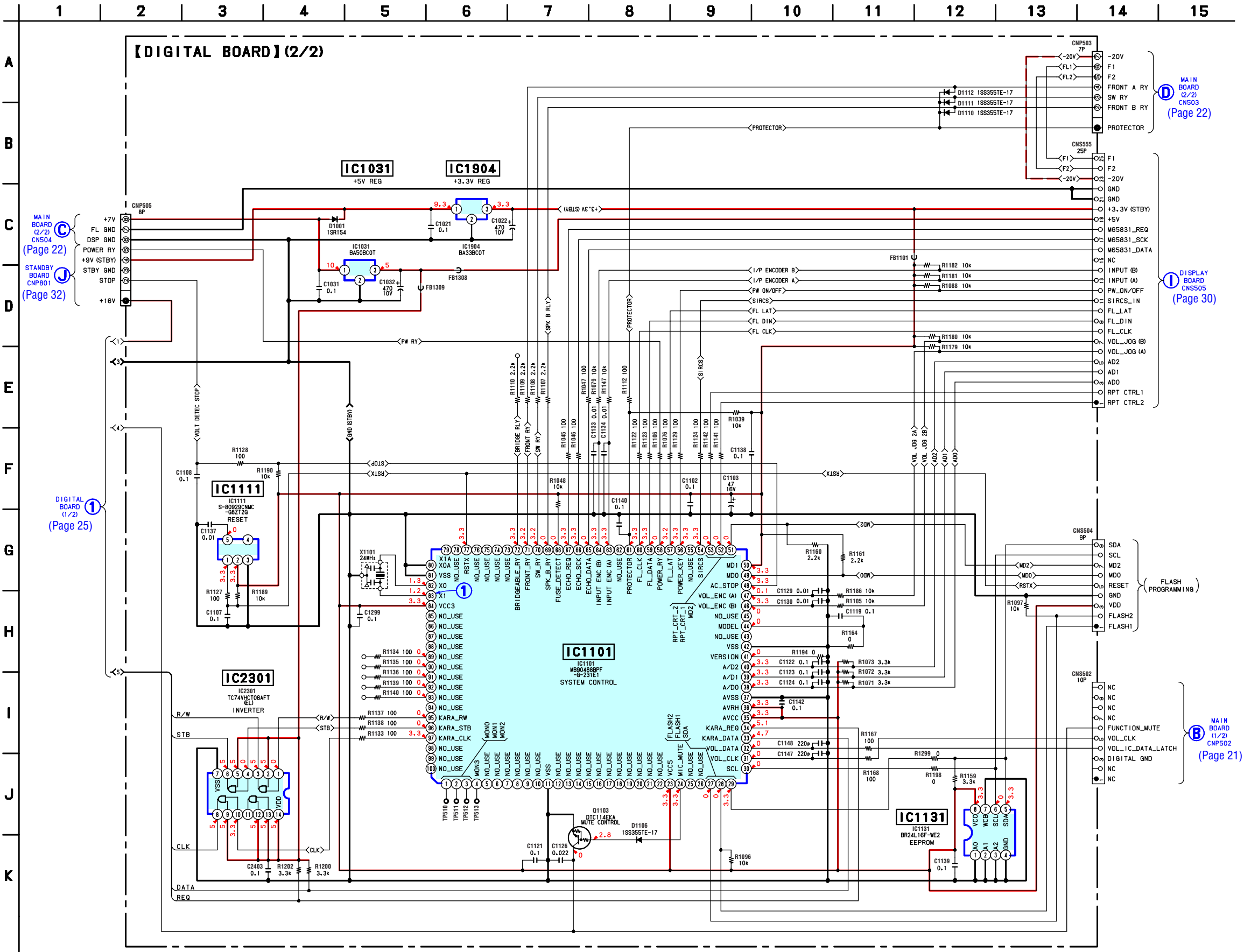


Ref. No.	Location
D1001	E-4
D1106	I-4
D1110	C-3
D1111	C-4
D1112	C-4
IC1031	D-4
IC1065	I-6
IC1902	C-5
IC1904	D-4
Q1103	I-4

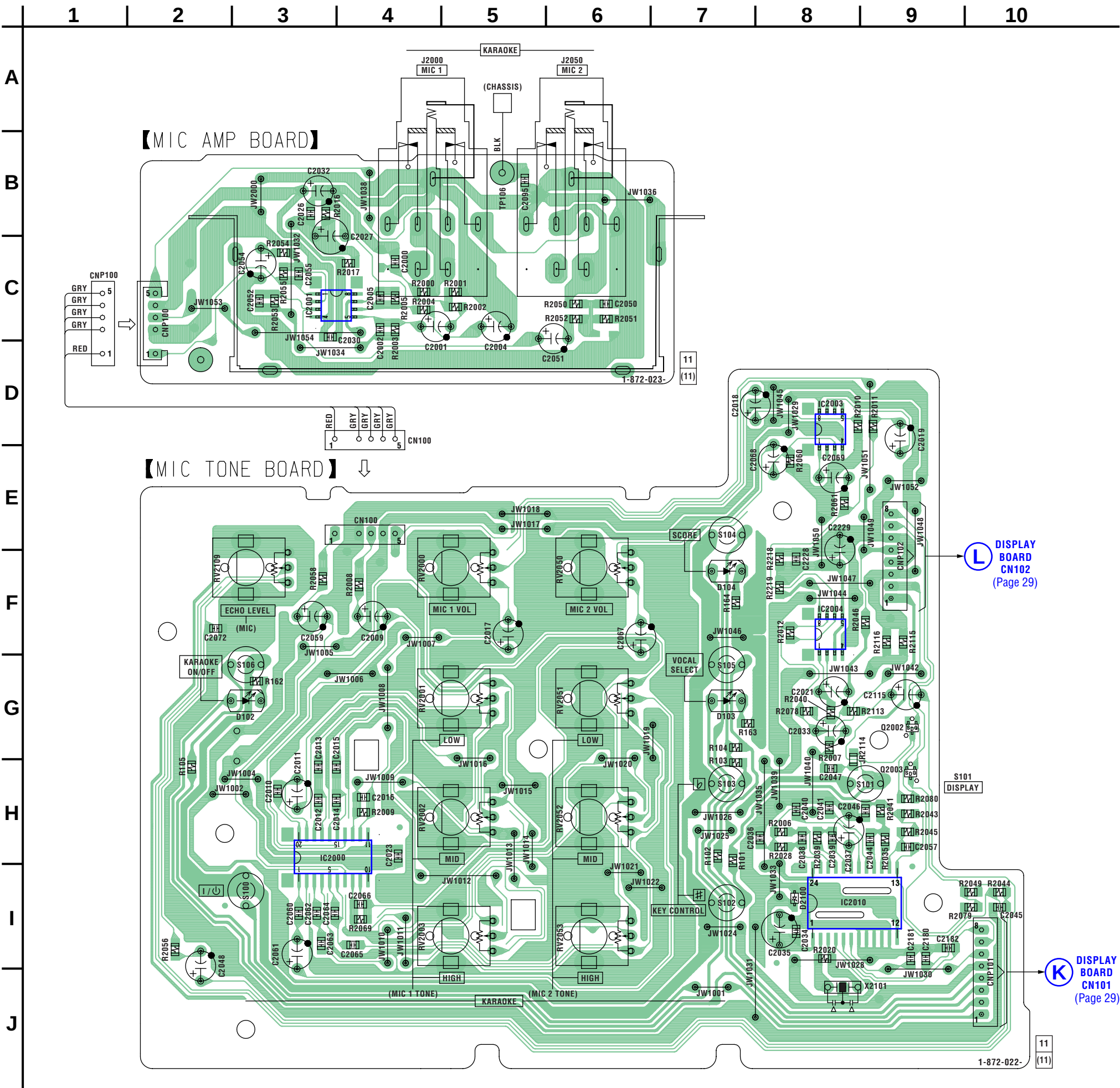
25



4-11. SCHEMATIC DIAGRAM — DIGITAL SECTION (2/2) — • Refer to page 19 for Waveform and page 35 for IC Pin Description.



4-12. PRINTED WIRING BOARDS — MIC SECTION — • Refer to page 19 for Circuit Boards Location. : Uses unleaded solder.



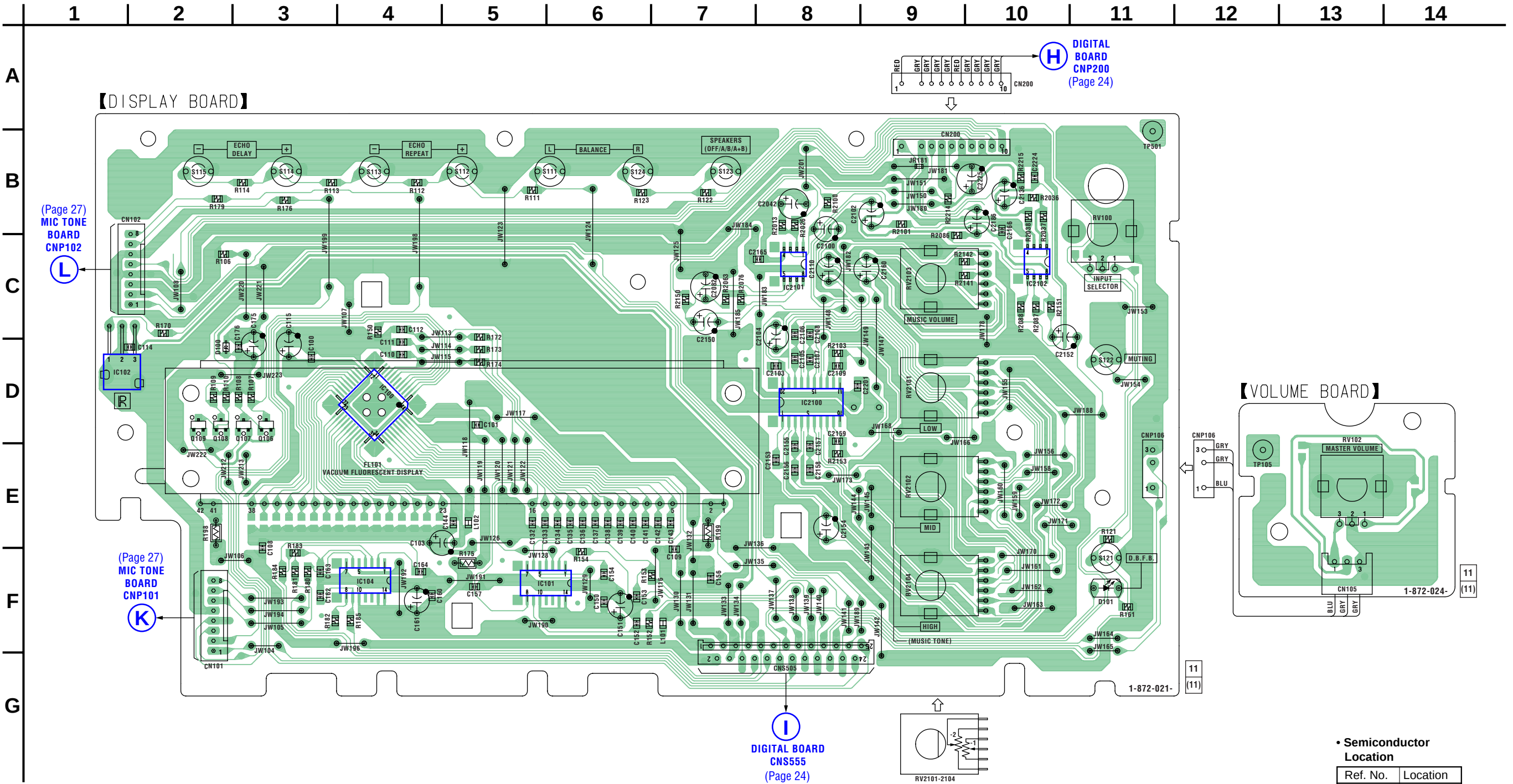
• Semiconductor Location

Ref. No.	Location
D102	G-3
D103	G-7
D104	F-7
D2100	I-8
IC2000	H-4
IC2001	C-3
IC2003	D-8
IC2004	F-8
IC2010	I-8
Q2002	G-9
Q2003	H-9

28



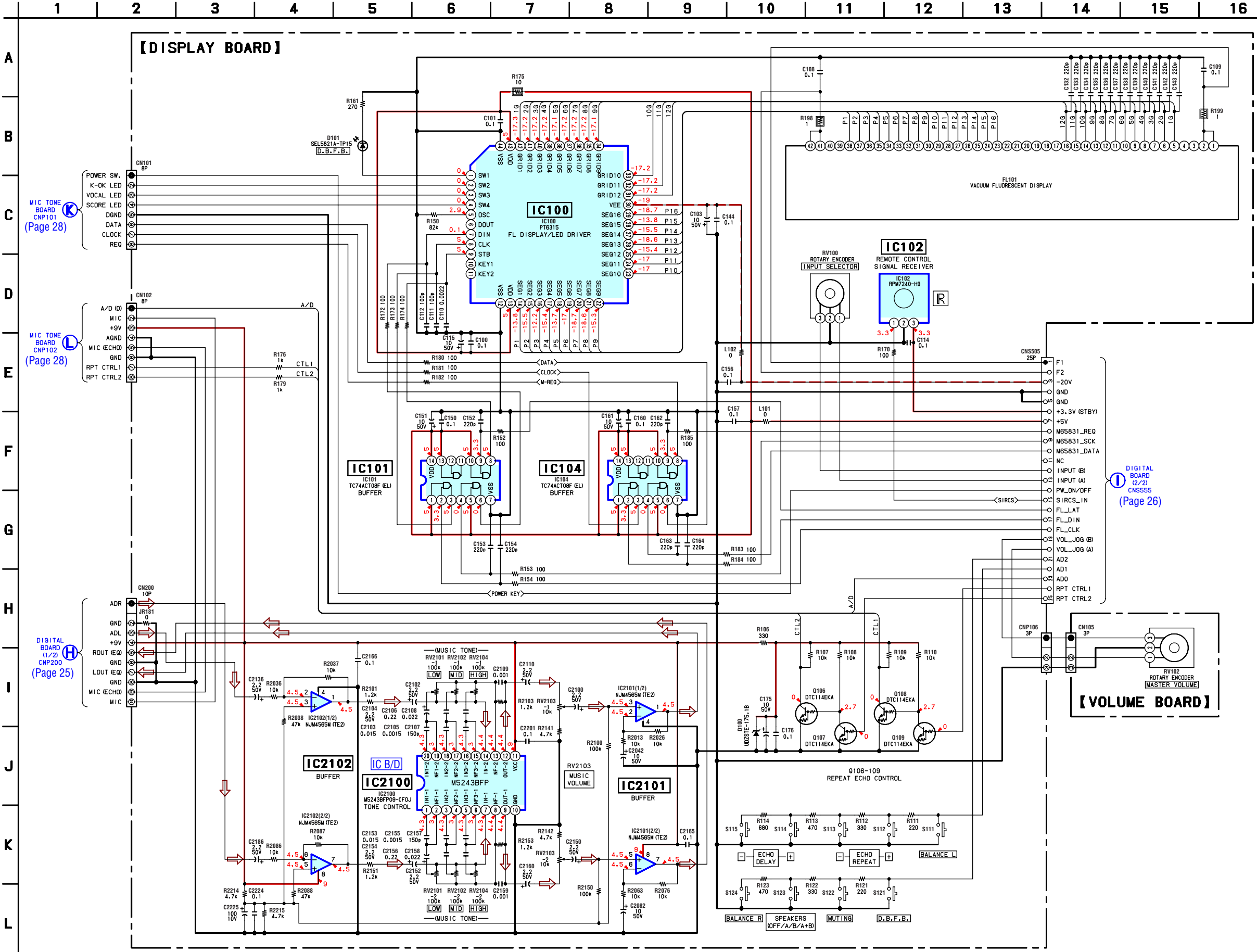
4-14. PRINTED WIRING BOARDS — DISPLAY SECTION — • Refer to page 19 for Circuit Boards Location. : Uses unleaded solder.



• Semiconductor Location

Ref. No.	Location
D100	D-2
D101	F-11
IC100	D-4
IC101	F-6
IC102	D-1
IC104	F-4
IC2100	D-8
IC2101	C-8
IC2102	C-10
Q106	D-3
Q107	D-3
Q108	D-2
Q109	D-2

4-15. SCHEMATIC DIAGRAM — DISPLAY SECTION — • Refer to page 34 for IC Block Diagram.



【STANDBY BOARD】

1-872-018-

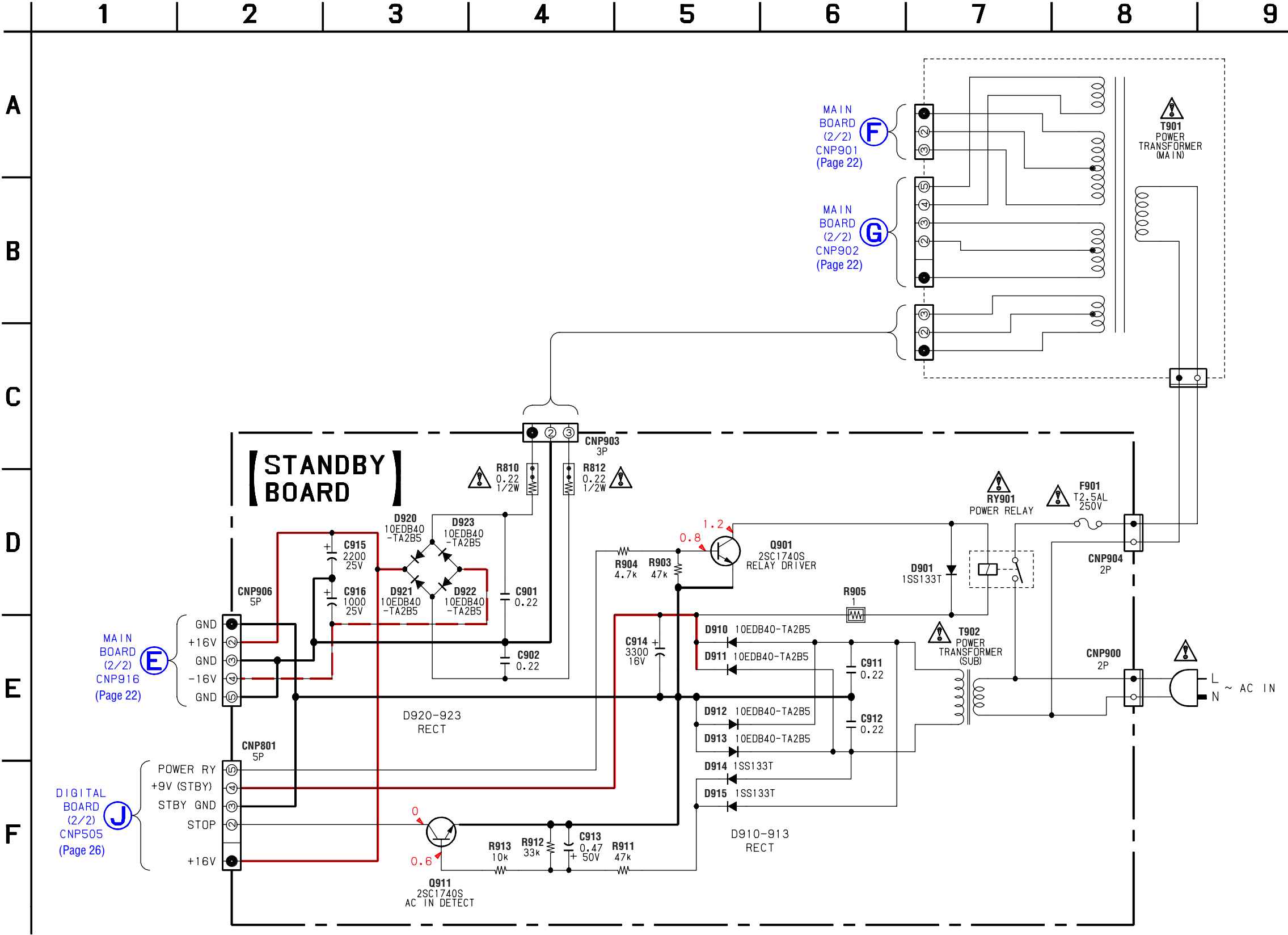
11
(11)

• Semiconductor Location

Ref. No.	Location
D901	F-5
D910	H-7
D911	H-7
D912	H-7
D913	H-7
D914	H-6
D915	H-6
D920	D-3
D921	D-3
D922	D-3
D923	D-3
Q901	G-6
Q911	G-5

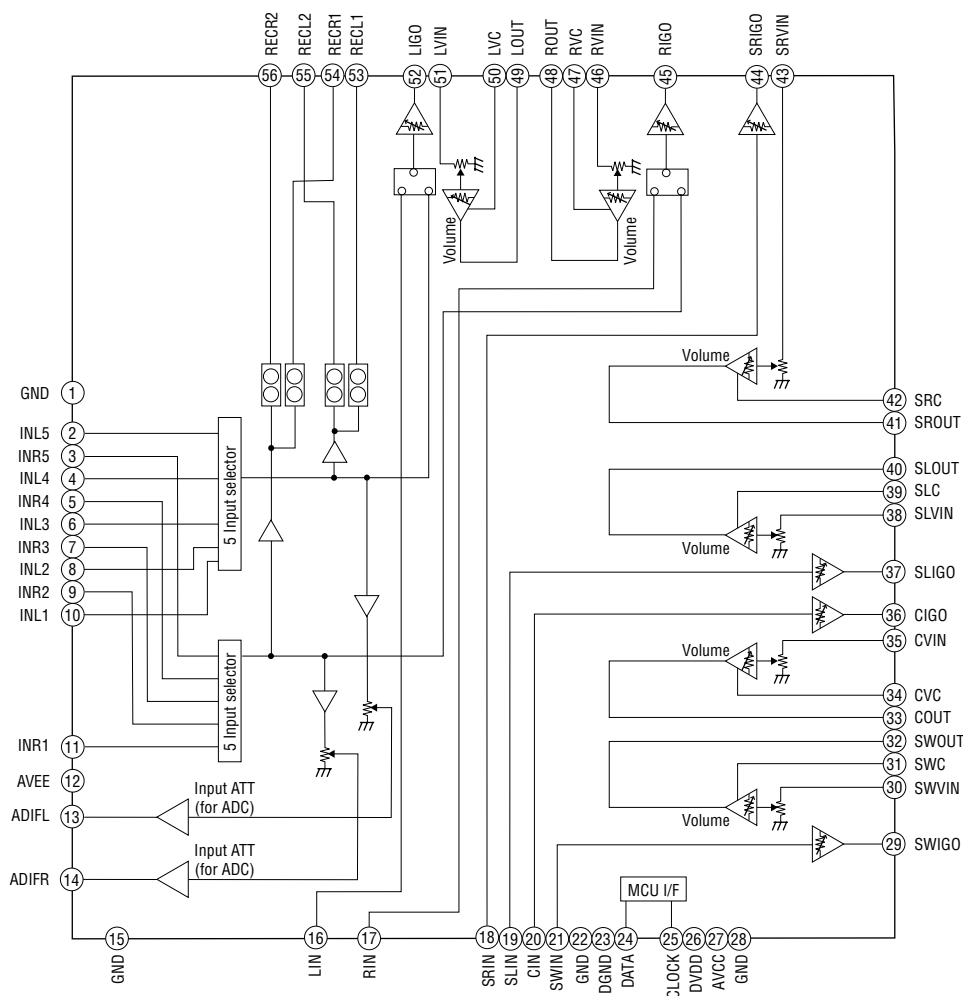
Ref. No.	Location
D901	F-5
D910	H-7
D911	H-7
D912	H-7
D913	H-7
D914	H-6
D915	H-6
D920	D-3
D921	D-3
D922	D-3
D923	D-3
Q901	G-6
Q911	G-5

4-17. SCHEMATIC DIAGRAM — POWER SECTION —

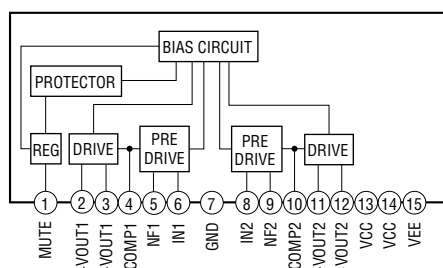


• IC Block Diagrams

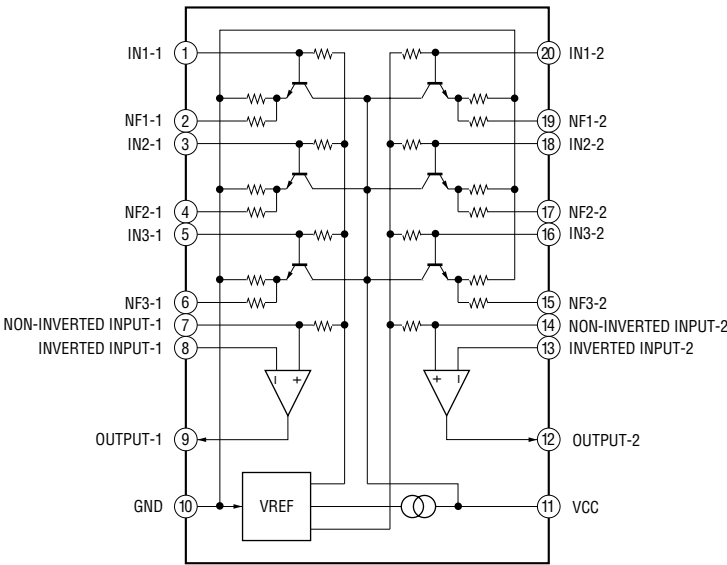
IC400 M61542FP (MAIN BOARD (1/2))



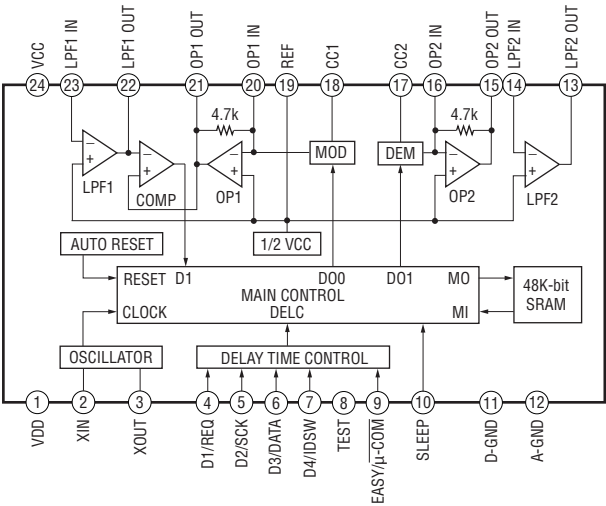
IC501 μ PC2581V-S (MAIN BOARD (2/2))



IC2000 M5243BFP09-CF0J (MIC TONE BOARD)
IC2100 M5243BFP09-CF0J (DISPLAY BOARD)



IC2010 M65831AFP (MIC TONE BOARD)



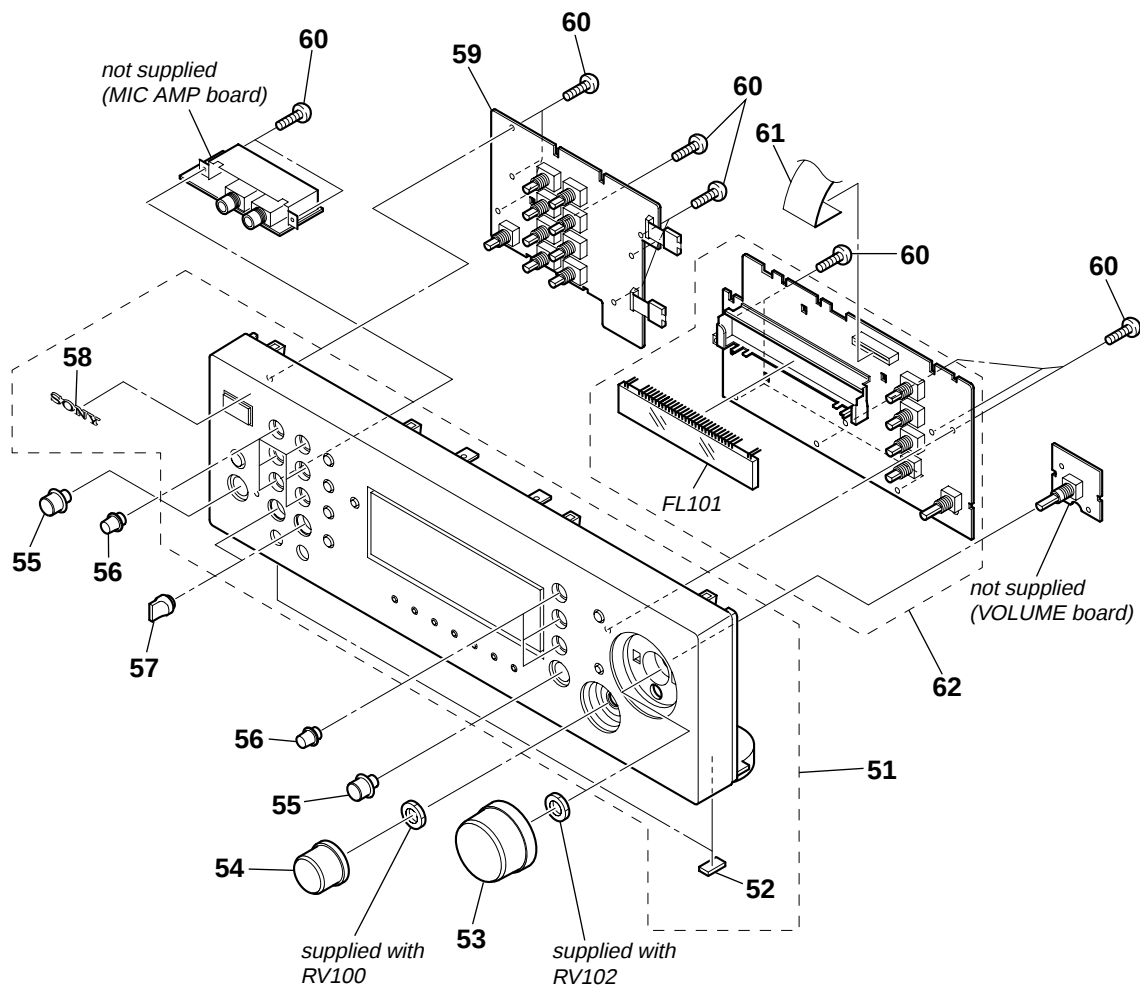
• IC Pin Description

IC1101 MB90488BPF-G-231E1 (SYSTEM CONTROL) (DIGITAL BOARD (2/2))

Pin No.	Pin Name	I/O	Pin Description
1 to 4	MON0 to MON3	O	Test pin 0 to 3
5 to 10	NO_USE	O	Not used (Open)
11	VSS	—	Ground
12 to 22	NO_USE	O	Not used (Open)
23	VCC5	—	Power supply pin (+3.3 V)
24	MIC_MUTE	O	Microphone mute control signal output
25, 26	NO_USE	O	Not used (Open)
27	FLASH2	I	Flash programming signal input 2
28	FLASH1	O	Flash programming signal output 1
29	SDA	I/O	Serial data input/output for EEPROM IC
30	SCL	O	Clock signal output for EEPROM IC
31	VOL_CLK	O	Clock signal output for DIR IC
32	VOL_DATA	O	Serial data output for DIR IC
33	KARA_DATA	I	KARAOKE serial data input from KARAOKE CONTROL IC
34	KARA_REQ	O	KARAOKE request signal output for KARAOKE CONTROL IC
35	AVCC	—	Power supply pin (+3.3 V)
36	AVRH	—	Power supply pin (+3.3 V)
37	AVSS	—	Ground
38 to 40	A/D0 to A/D2	I	Key signal input (A/D port)
41	VERSION	I	Destination detection signal input (Fixed at L)
42	VSS	—	Ground
43	NO_USE	O	Not used (Open)
44	MODEL	I	Model detection signal input (Fixed at L)
45	NO_USE	O	Not used (Open)
46	VOL_ENC (B)	I	MASTER VOLUME encoder (B) signal input
47	VOL_ENC (A)	I	MASTER VOLUME encoder (A) signal input
48	AC_STOP	I	AC off detection signal input
49	MOD0	—	Selection of micon operation mode
50	MOD1	—	Not used (Connect to AVCC)
51	MOD2	—	Selection of micon operation mode
52	RPT_CRT_1	O	Repeat echo control signal output 1 for ECHO LEVEL CONTROL IC
53	RPT_CRT_2	O	Repeat echo control signal output 2 for ECHO LEVEL CONTROL IC
54	SIRCS	I	SIRCS signal input
55	NO_USE	O	Not used (Open)
56	POWER_KEY	I	Power key detection signal input
57	FL_LAT	O	Latch signal output for FL driver IC
58	POWER_RY	O	Power relay driver control signal output
59	FL_DATA	O	Serial data output for FL driver IC
60	FL_CLK	O	Clock signal output for FL driver IC
61	PROTECTOR	I	Protector detection signal input
62	NO_USE	O	Not used (Open)
63	INPUT_ENC (A)	I	INPUT SELECTOR encoder (A) signal input
64	INPUT_ENC (B)	I	INPUT SELECTOR encoder (B) signal input
65	ECHO_DATA	O	Serial data output for ECHO LEVEL CONTROL IC
66	ECHO_SCK	O	Clock signal output for ECHO LEVEL CONTROL IC
67	ECHO_REQ	O	Request signal output for ECHO LEVEL CONTROL IC
68	FUSE_DETECT	I	Fuse open detection signal input
69	SPK_B_RY	O	Front B speaker relay driver control signal output
70	SW_RELAY	O	Sub woofer relay driver control signal output
71	FRONT_RY	O	Front A speaker relay driver control signal output

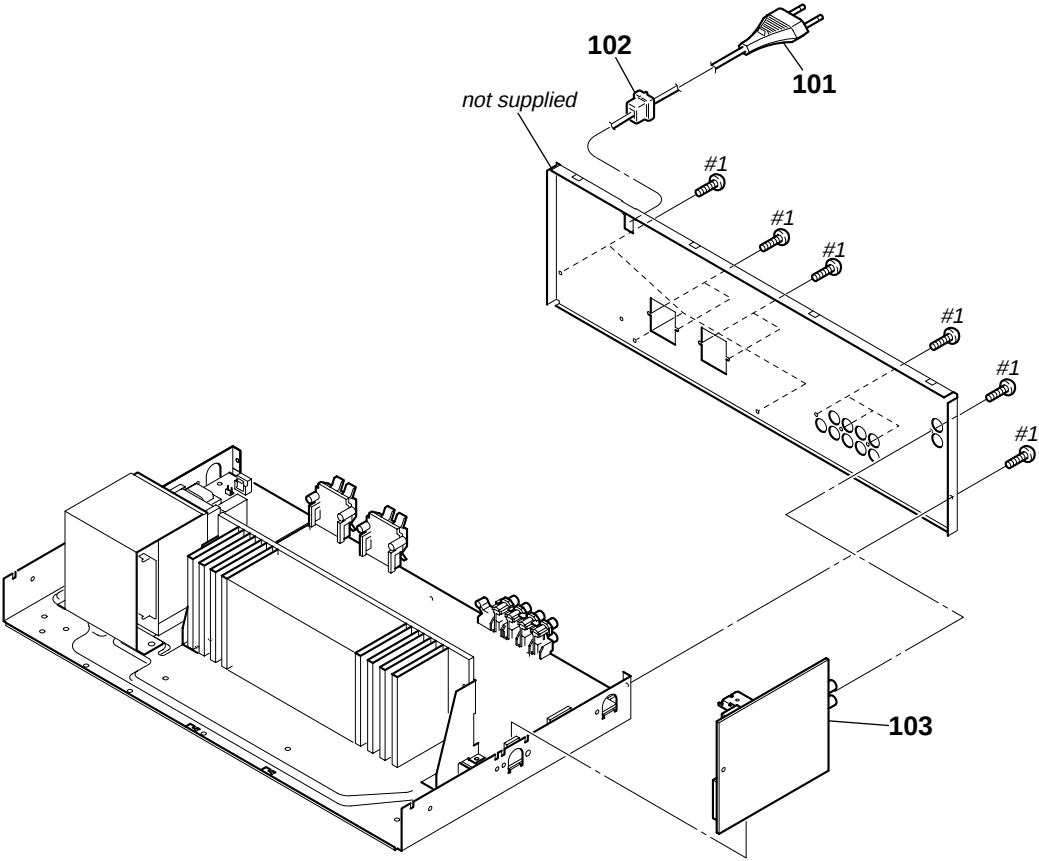
Pin No.	Pin Name	I/O	Pin Description
72	BRIDGEABLE_RY	O	Not used (Open)
73 to 76	NO_USE	O	Not used (Open)
77	RSTX	I	Reset signal input
78	NO_USE	O	Not used (Open)
79	X1A	—	Not used (Open)
80	X0A	—	Not used (Connect to VSS)
81	VSS	—	Ground
82	X0	—	Clock signal input (24 MHz)
83	X1	—	Clock signal output (24 MHz)
84	VCC3	—	Power supply pin (+3.3 V)
85 to 94	NO_USE	O	Not used (Open)
95	KARA_RW	O	KARAOKE read/write signal output for KARAOKE CONTROL IC
96	KARA_STB	O	KARAOKE strobe signal output for KARAOKE CONTROL IC
97	KARA_CLK	O	KARAOKE clock signal output for KARAOKE CONTROL IC
98 to 100	NO_USE	O	Not used (Open)

5-2. FRONT PANEL SECTION



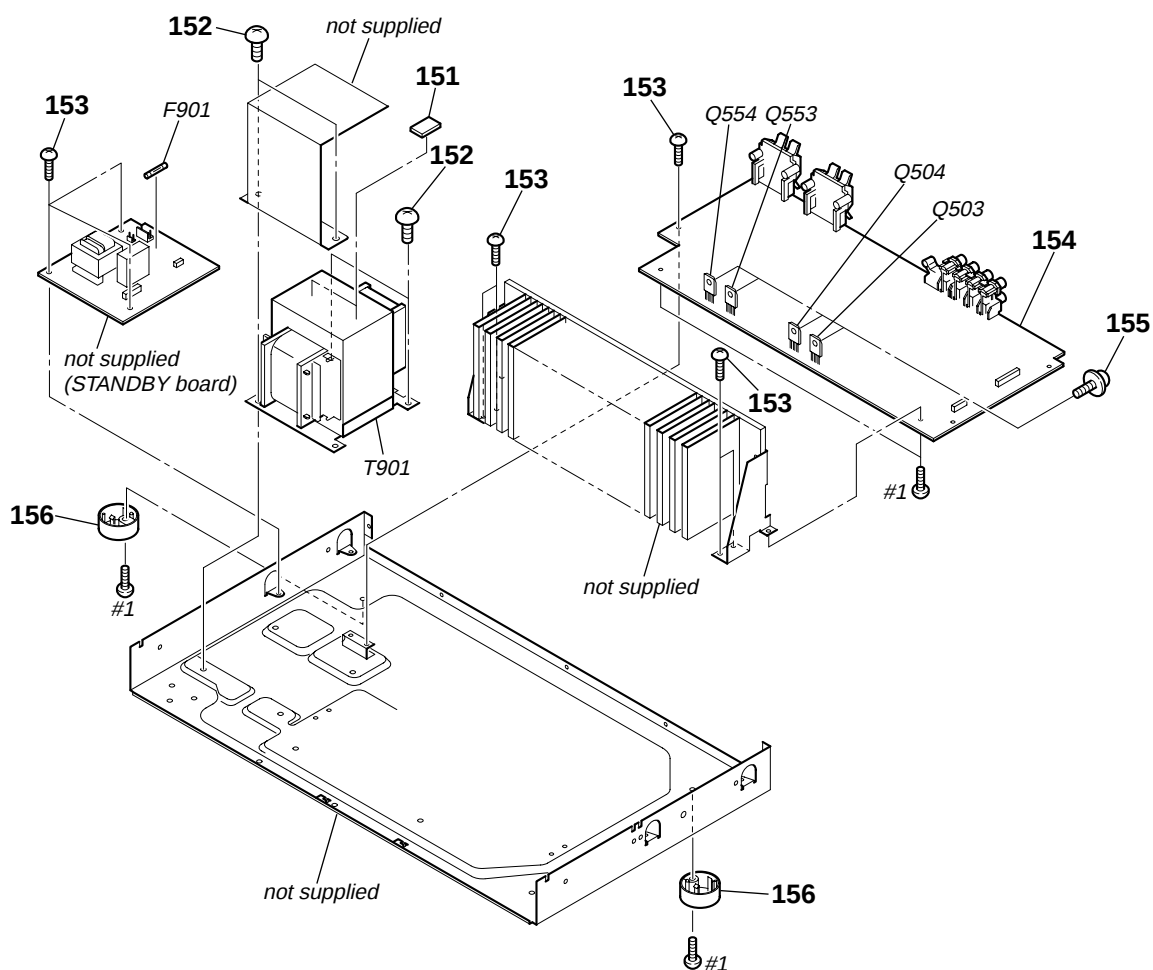
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	X-2149-985-1	FRONT PANEL ASSY (GOLD)...(GOLD)		56	2-655-486-21	KNOB (MIC TONE) (GOLD)...(GOLD)	
51	X-2159-696-1	FRONT PANEL ASSY (SILVER)...(SILVER)		57	2-655-485-01	KNOB (MIC VOL) (SILVER)...(SILVER)	
52	4-977-358-01	CUSHION		57	2-655-485-21	KNOB (MIC VOL) (GOLD)...(GOLD)	
53	4-240-507-11	KNOB (VOL) (GOLD)...(GOLD)		58	4-240-858-11	EMBLEM (5-A), SONY (GOLD)...(GOLD)	
53	4-240-507-41	KNOB (VOL) (SILVER)...(SILVER)		58	4-240-858-21	EMBLEM (5-A), SONY (SILVER)...(SILVER)	
54	4-232-569-12	KNOB (FN DE9) (GOLD)...(GOLD)		59	A-1216-815-A	MIC TONE BOARD, COMPLETE	
54	4-232-569-31	KNOB (FN DE9) (SILVER)...(SILVER)		60	3-087-053-01	+BVTP 2.6 (3CR)	
55	2-668-074-41	KNOB (ECHO) (GOLD)...(GOLD)		61	1-829-034-11	WIRE (FLAT TYPE) (25 CORE)	
55	2-668-074-51	KNOB (ECHO) (SILVER)...(SILVER)		62	A-1216-813-A	DISPLAY BOARD, COMPLETE	
56	2-655-486-01	KNOB (MIC TONE) (SILVER)...(SILVER)		FL101	1-518-966-11	VACUUM FLUORESCENT DISPLAY	

5-3. BACK PANEL SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
△ 101	1-777-071-83	CORD, POWER		103	A-1216-806-A	DIGITAL BOARD, COMPLETE	
* 102	3-703-244-00	BUSHING (2104), CORD		#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	

5-4. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	4-985-642-01	CUSHION		Q503	6-702-390-01	TRANSISTOR MN2488-OPY-MK	
152	4-900-386-01	SCREW		Q504	6-702-391-01	TRANSISTOR MP1620-OPY-MK	
153	3-077-331-21	+BV3 (3-CR)		Q553	6-702-390-01	TRANSISTOR MN2488-OPY-MK	
154	A-1216-809-A	MAIN BOARD, COMPLETE		Q554	6-702-391-01	TRANSISTOR MP1620-OPY-MK	
155	3-905-609-01	SCREW (TRANSISTOR)		△ T901	1-443-914-11	TRANSFORMER, POWER (MAIN)	
156	X-4953-448-1	FOOT ASSY		#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
△ F901	1-532-464-33	FUSE (T2.5A/250V)					

SECTION 6

ELECTRICAL PARTS LIST

DIGITAL

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u : μ , for example:
uA.. : μ A.. uPA.. : μ PA..
uPB.. : μ PB.. uPC.. : μ PC.. uPD.. : μ PD..
- CAPACITORS
uF : μ F
- COILS
uH : μ H

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark			
	A-1216-806-A	DIGITAL BOARD, COMPLETE	*****				C1505	1-126-964-11	ELECT	10uF	20%	50V	
							C1506	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V	
							C1507	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V	
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3					C1508	1-126-964-11	ELECT	10uF	20%	50V	
		< CAPACITOR >					C1511	1-126-964-11	ELECT	10uF	20%	50V	
C1005	1-162-971-11	CERAMIC CHIP	0.001uF	10%	50V		C1514	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V	
C1021	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V		C1545	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	
C1022	1-126-925-11	ELECT	470uF	20%	10V		C1546	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	
C1031	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V		C1913	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V	
C1032	1-126-925-11	ELECT	470uF	20%	10V		C1914	1-126-947-11	ELECT	47uF	20%	35V	
C1075	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V		C2300	1-126-960-11	ELECT	1uF	20%	50V	
C1076	1-126-947-11	ELECT	47uF	20%	35V		C2301	1-126-964-11	ELECT	10uF	20%	50V	
C1102	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V		C2302	1-131-664-11	CERAMIC CHIP	0.15uF	10%	10V	
C1103	1-126-947-11	ELECT	47uF	20%	35V		C2303	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V	
C1107	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V		C2304	1-131-664-11	CERAMIC CHIP	0.15uF	10%	10V	
C1108	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V		C2305	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V	
C1119	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V		C2306	1-126-961-11	ELECT	2.2uF	20%	50V	
C1121	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V		C2307	1-165-138-11	CERAMIC CHIP	560PF	2%	50V	
C1122	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V		C2308	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V	
C1123	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V		C2309	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C1124	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V		C2310	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C1126	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V		C2311	1-126-961-11	ELECT	2.2uF	20%	50V	
C1129	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V		C2312	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C1130	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V		C2313	1-115-414-11	CERAMIC CHIP	820PF	5%	25V	
C1133	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V		C2314	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V	
C1134	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V		C2315	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V	
C1137	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V		C2316	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V	
C1138	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V		C2317	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V	
C1139	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V		C2318	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V	
C1140	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V		C2319	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V	
C1142	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V		C2320	1-126-967-11	ELECT	47uF	20%	50V	
C1147	1-162-960-11	CERAMIC CHIP	220PF	10%	50V		C2321	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V	
C1148	1-162-960-11	CERAMIC CHIP	220PF	10%	50V		C2324	1-100-152-11	CERAMIC CHIP	100PF	5%	100V	
C1244	1-126-960-11	ELECT	1uF	20%	50V		C2325	1-100-152-11	CERAMIC CHIP	100PF	5%	100V	
C1245	1-126-960-11	ELECT	1uF	20%	50V		C2326	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C1246	1-131-664-11	CERAMIC CHIP	0.15uF	10%	10V		C2327	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V	
C1299	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V		C2328	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V	
C1413	1-162-962-11	CERAMIC CHIP	470PF	10%	50V		C2329	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V	
C1415	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V		C2330	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V	
C1416	1-126-964-11	ELECT	10uF	20%	50V		C2331	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V	
C1418	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V		C2332	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C1419	1-126-964-11	ELECT	10uF	20%	50V		C2333	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V	
C1503	1-126-961-11	ELECT	2.2uF	20%	50V		C2334	1-115-156-11	CERAMIC CHIP	1uF		10V	
C1504	1-126-964-11	ELECT	10uF	20%	50V		C2335	1-126-961-11	ELECT	2.2uF	20%	50V	
							C2336	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V	

DIGITAL

Ref. No.	Part No.	Description	Remark			
C2337	1-126-933-11	ELECT	100uF	20%	16V	
C2338	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	
C2339	1-113-619-11	CERAMIC CHIP	0.47uF		10V	
C2340	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V	
C2341	1-126-964-11	ELECT	10uF	20%	50V	
C2342	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	
C2343	1-126-933-11	ELECT	100uF	20%	16V	
C2345	1-100-152-11	CERAMIC CHIP	100PF	5%	100V	
C2346	1-100-152-11	CERAMIC CHIP	100PF	5%	100V	
C2351	1-126-964-11	ELECT	10uF	20%	50V	
C2352	1-162-960-11	CERAMIC CHIP	220PF	10%	50V	
C2355	1-162-960-11	CERAMIC CHIP	220PF	10%	50V	
C2388	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	
C2389	1-113-619-11	CERAMIC CHIP	0.47uF		10V	
C2390	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V	
C2391	1-126-964-11	ELECT	10uF	20%	50V	
C2392	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V	
C2403	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V	
< CONNECTOR >						
CNP200	1-784-925-11	PIN, CONNECTOR 10P				
CNP503	1-784-923-11	PIN, CONNECTOR 7P				
CNP505	1-784-924-11	PIN, CONNECTOR 8P				
CNS501	1-573-829-11	CONNECTOR, BOARD TO BOARD 15P				
CNS502	1-766-719-41	CONNECTOR, BOARD TO BOARD 10P				
CNS504	1-568-828-11	CONNECTOR, FFC 9P				
CNS555	1-784-786-11	CONNECTOR, FFC 25P				
< DIODE >						
D1001	8-719-053-18	DIODE 1SR154-400TE-25				
D1106	8-719-988-61	DIODE 1SS355TE-17				
D1110	8-719-988-61	DIODE 1SS355TE-17				
D1111	8-719-988-61	DIODE 1SS355TE-17				
D1112	8-719-988-61	DIODE 1SS355TE-17				
< FERRITE BEAD >						
FB1101	1-400-862-11	BEAD, FERRITE				
FB1308	1-400-862-11	BEAD, FERRITE				
FB1309	1-400-862-11	BEAD, FERRITE				
< IC >						
IC1031	6-705-464-01	IC BA50BC0T				
IC1065	6-703-547-01	IC TA7805LS				
IC1101	6-807-121-01	IC MB90488BPF-G-231E1				
IC1103	8-759-710-97	IC NJM4565M-D				
IC1104	8-759-710-97	IC NJM4565M-D				
IC1106	8-759-710-97	IC NJM4565M-D				
IC1108	8-759-710-97	IC NJM4565M-D				
IC1111	6-702-913-01	IC S-80929CNMC-G8ZT2G				
IC1131	6-704-004-01	IC BR24L16F-WE2				
IC1902	8-759-701-59	IC NJM78M09FA				
IC1904	6-705-463-01	IC BA33BC0T				
IC2300	6-709-162-01	IC M65851FP-RF0T				
IC2301	8-759-491-47	IC TC74VHCT08AFT(EL)				
< JACK >						
J1501	1-764-767-21	JACK, PIN 2P (MIC OUTPUT)				

Ref. No.	Part No.	Description	Remark			
< TRANSISTOR >						
Q1103	8-729-027-43	TRANSISTOR	DTC114EKA-T146			
Q1301	8-729-027-31	TRANSISTOR	DTA124EKA-T146			
Q1545	8-729-802-80	TRANSISTOR	2SC3661-TB-E			
Q1548	8-729-802-80	TRANSISTOR	2SC3661-TB-E			
< RESISTOR >						
R1039	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R1045	1-216-809-11	METAL CHIP	100	5%	1/10W	
R1046	1-216-809-11	METAL CHIP	100	5%	1/10W	
R1047	1-216-809-11	METAL CHIP	100	5%	1/10W	
R1048	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R1071	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	
R1072	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	
R1073	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	
R1076	1-216-809-11	METAL CHIP	100	5%	1/10W	
R1079	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R1088	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R1096	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R1097	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R1105	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R1106	1-216-809-11	METAL CHIP	100	5%	1/10W	
R1107	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
R1108	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
R1109	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
R1110	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
R1112	1-216-809-11	METAL CHIP	100	5%	1/10W	
R1122	1-216-809-11	METAL CHIP	100	5%	1/10W	
R1123	1-216-809-11	METAL CHIP	100	5%	1/10W	
R1124	1-216-809-11	METAL CHIP	100	5%	1/10W	
R1127	1-216-809-11	METAL CHIP	100	5%	1/10W	
R1128	1-216-809-11	METAL CHIP	100	5%	1/10W	
R1129	1-216-809-11	METAL CHIP	100	5%	1/10W	
R1133	1-216-809-11	METAL CHIP	100	5%	1/10W	
R1134	1-216-809-11	METAL CHIP	100	5%	1/10W	
R1135	1-216-809-11	METAL CHIP	100	5%	1/10W	
R1136	1-216-809-11	METAL CHIP	100	5%	1/10W	
R1137	1-216-809-11	METAL CHIP	100	5%	1/10W	
R1138	1-216-809-11	METAL CHIP	100	5%	1/10W	
R1139	1-216-809-11	METAL CHIP	100	5%	1/10W	
R1140	1-216-809-11	METAL CHIP	100	5%	1/10W	
R1141	1-216-809-11	METAL CHIP	100	5%	1/10W	
R1142	1-216-809-11	METAL CHIP	100	5%	1/10W	
R1147	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R1159	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	
R1160	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
R1161	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
R1164	1-216-864-11	SHORT CHIP	0			
R1167	1-216-809-11	METAL CHIP	100	5%	1/10W	
R1168	1-216-809-11	METAL CHIP	100	5%	1/10W	
R1179	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R1180	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R1181	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R1182	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R1186	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R1189	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R1190	1-216-833-11	METAL CHIP	10K	5%	1/10W	

DIGITAL

DISPLAY

Ref. No.	Part No.	Description	Remark			
R1194	1-216-864-11	SHORT CHIP	0			
R1198	1-216-864-11	SHORT CHIP	0			
R1200	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	
R1202	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	
R1210	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
R1211	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
R1299	1-216-864-11	SHORT CHIP	0			
R1301	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R1302	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R1417	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
R1418	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
R1420	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R1421	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R1422	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R1423	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W	
R1424	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R1425	1-216-813-11	METAL CHIP	220	5%	1/10W	
R1426	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R1427	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R1429	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
R1501	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R1503	1-216-839-11	METAL CHIP	33K	5%	1/10W	
R1504	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R1505	1-216-841-11	METAL CHIP	47K	5%	1/10W	
R1508	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R1511	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
R1514	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R1515	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R1544	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R1545	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R1546	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
R1547	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
R1548	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R1549	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R2286	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R2300	1-216-835-11	METAL CHIP	15K	5%	1/10W	
R2301	1-216-828-11	METAL CHIP	3.9K	5%	1/10W	
R2302	1-216-838-11	METAL CHIP	27K	5%	1/10W	
R2303	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	
R2304	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R2305	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
R2306	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R2307	1-216-835-11	METAL CHIP	15K	5%	1/10W	
R2308	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R2309	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R2310	1-216-809-11	METAL CHIP	100	5%	1/10W	
R2311	1-216-809-11	METAL CHIP	100	5%	1/10W	
R2312	1-216-809-11	METAL CHIP	100	5%	1/10W	
R2335	1-216-809-11	METAL CHIP	100	5%	1/10W	
R2336	1-216-809-11	METAL CHIP	100	5%	1/10W	
R2347	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R2348	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R2349	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R2350	1-216-841-11	METAL CHIP	47K	5%	1/10W	
R2351	1-216-841-11	METAL CHIP	47K	5%	1/10W	
R2352	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R2353	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R2354	1-216-833-11	METAL CHIP	10K	5%	1/10W	

Ref. No.	Part No.	Description	Remark		
R2355	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2356	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2357	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2358	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
< VIBRATOR >					
X1101	1-813-448-21	PIEZOELECTRIC OSCILLATOR (24MHz)			

A-1216-813-A		DISPLAY BOARD, COMPLETE			

< CAPACITOR >					
C100	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C101	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C103	1-124-261-00	ELECT	10uF	20%	50V
C108	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C109	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C110	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C111	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C112	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C114	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C115	1-124-261-00	ELECT	10uF	20%	50V
C132	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C133	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C134	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C135	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C136	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C137	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C138	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C139	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C140	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C141	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C142	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C143	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C144	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C150	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C151	1-124-261-00	ELECT	10uF	20%	50V
C152	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C153	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C154	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C156	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C157	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C160	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C161	1-124-261-00	ELECT	10uF	20%	50V
C162	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C163	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C164	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C175	1-124-261-00	ELECT	10uF	20%	50V
C176	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C2042	1-124-261-00	ELECT	10uF	20%	50V
C2082	1-124-261-00	ELECT	10uF	20%	50V
C2100	1-124-257-00	ELECT	2.2uF	20%	50V
C2102	1-124-257-00	ELECT	2.2uF	20%	50V
C2103	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
C2104	1-124-257-00	ELECT	2.2uF	20%	50V
C2105	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C2106	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V

DISPLAY

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C2107	1-164-217-11	CERAMIC CHIP	150PF	5%	50V	R108	1-216-833-11	METAL CHIP	10K	5%	1/10W
C2108	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	R109	1-216-833-11	METAL CHIP	10K	5%	1/10W
C2109	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V	R110	1-216-833-11	METAL CHIP	10K	5%	1/10W
C2110	1-124-257-00	ELECT	2.2uF	20%	50V	R111	1-216-813-11	METAL CHIP	220	5%	1/10W
C2136	1-124-257-00	ELECT	2.2uF	20%	50V	R112	1-216-815-11	METAL CHIP	330	5%	1/10W
C2150	1-124-257-00	ELECT	2.2uF	20%	50V	R113	1-216-817-11	METAL CHIP	470	5%	1/10W
C2152	1-124-257-00	ELECT	2.2uF	20%	50V	R114	1-216-819-11	METAL CHIP	680	5%	1/10W
C2153	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V	R121	1-216-813-11	METAL CHIP	220	5%	1/10W
C2154	1-124-257-00	ELECT	2.2uF	20%	50V	R122	1-216-815-11	METAL CHIP	330	5%	1/10W
C2155	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V	R123	1-216-817-11	METAL CHIP	470	5%	1/10W
C2156	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V	R150	1-216-844-11	METAL CHIP	82K	5%	1/10W
C2157	1-164-217-11	CERAMIC CHIP	150PF	5%	50V	R152	1-216-809-11	METAL CHIP	100	5%	1/10W
C2158	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	R153	1-216-809-11	METAL CHIP	100	5%	1/10W
C2159	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V	R154	1-216-809-11	METAL CHIP	100	5%	1/10W
C2160	1-124-257-00	ELECT	2.2uF	20%	50V	R161	1-216-814-11	METAL CHIP	270	5%	1/10W
C2165	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V	R170	1-216-809-11	METAL CHIP	100	5%	1/10W
C2166	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V	R172	1-216-809-11	METAL CHIP	100	5%	1/10W
C2186	1-124-257-00	ELECT	2.2uF	20%	50V	R173	1-216-809-11	METAL CHIP	100	5%	1/10W
C2201	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V	R174	1-216-809-11	METAL CHIP	100	5%	1/10W
C2224	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V	R175	1-249-393-11	CARBON	10	5%	1/4W F
C2225	1-124-584-00	ELECT	100uF	20%	10V	R176	1-216-821-11	METAL CHIP	1K	5%	1/10W
		< CONNECTOR >				R179	1-216-821-11	METAL CHIP	1K	5%	1/10W
CN101	1-568-669-11	CONNECTOR, BOARD TO BOARD 8P				R180	1-216-809-11	METAL CHIP	100	5%	1/10W
CN102	1-568-669-11	CONNECTOR, BOARD TO BOARD 8P				R181	1-216-809-11	METAL CHIP	100	5%	1/10W
CNS505	1-784-786-11	CONNECTOR, FFC 25P				R182	1-216-809-11	METAL CHIP	100	5%	1/10W
		< DIODE >				R183	1-216-809-11	METAL CHIP	100	5%	1/10W
D100	8-719-069-54	DIODE UDZSTE-175.1B				R184	1-216-809-11	METAL CHIP	100	5%	1/10W
D101	8-719-046-39	LED SEL5821A-TP15 (D.B.F.B.)				R185	1-216-809-11	METAL CHIP	100	5%	1/10W
		< VACUUM FLUORESCENT DISPLAY >				R198	1-249-381-11	CARBON	1	5%	1/4W F
FL101	1-518-966-11	VACUUM FLUORESCENT DISPLAY				R199	1-249-381-11	CARBON	1	5%	1/4W F
		< IC >				R2013	1-216-833-11	METAL CHIP	10K	5%	1/10W
IC100	8-759-643-83	IC uPD16315GB-3BS				R2026	1-216-833-11	METAL CHIP	10K	5%	1/10W
IC101	8-759-157-94	IC TC74ACT08F(EL)				R2036	1-216-833-11	METAL CHIP	10K	5%	1/10W
IC102	6-600-309-01	IC RPM7240-H9 (IR)				R2037	1-216-833-11	METAL CHIP	10K	5%	1/10W
IC104	8-759-157-94	IC TC74ACT08F(EL)				R2038	1-216-841-11	METAL CHIP	47K	5%	1/10W
IC2100	6-709-163-01	IC M5243BFP09-CF0J				R2063	1-216-833-11	METAL CHIP	10K	5%	1/10W
IC2101	8-759-710-97	IC NJM4565M-D				R2076	1-216-833-11	METAL CHIP	10K	5%	1/10W
IC2102	8-759-710-97	IC NJM4565M-D				R2086	1-216-833-11	METAL CHIP	10K	5%	1/10W
		< JUMPER RESISTOR >				R2087	1-216-833-11	METAL CHIP	10K	5%	1/10W
JR181	1-216-864-11	SHORT CHIP	0			R2088	1-216-841-11	METAL CHIP	47K	5%	1/10W
L101	1-216-864-11	SHORT CHIP	0			R2100	1-216-845-11	METAL CHIP	100K	5%	1/10W
L102	1-216-864-11	SHORT CHIP	0			R2101	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
		< TRANSISTOR >				R2103	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
Q106	8-729-027-43	TRANSISTOR	DTC114EKA-T146			R2141	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
Q107	8-729-027-43	TRANSISTOR	DTC114EKA-T146			R2142	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
Q108	8-729-027-43	TRANSISTOR	DTC114EKA-T146			R2150	1-216-845-11	METAL CHIP	100K	5%	1/10W
Q109	8-729-027-43	TRANSISTOR	DTC114EKA-T146			R2151	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
		< RESISTOR >				R2153	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R106	1-216-815-11	METAL CHIP	330	5%	1/10W	R2214	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R107	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2215	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
								< ROTARY ENCODER >			
						RV100	1-418-817-11	ENCODER, ROTARY (INPUT SELECTOR)			
								< VARIABLE RESISTOR >			
						RV2101	1-227-736-11	RES, VAR, CARBON 100KX2 (LOW (MUSIC TONE))			

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
RV2102	1-227-736-11	RES, VAR, CARBON 100KX2 (MID (MUSIC TONE))		C516	1-136-157-00	FILM 0.022uF 5%	50V
RV2103	1-227-781-11	RES, VAR, CARBON 10KX2 (MUSIC VOLUME)		C551	1-126-963-11	ELECT 4.7uF 20%	50V
RV2104	1-227-736-11	RES, VAR, CARBON 100KX2 (HIGH (MUSIC TONE))		C552	1-128-809-11	CERAMIC 100PF 5%	50V
				C553	1-128-809-11	CERAMIC 100PF 5%	50V
				C554	1-102-233-00	CERAMIC 33PF 10%	500V
		< SWITCH >		C556	1-107-583-11	CERAMIC 3PF 0.25PF	500V
S111	1-771-410-21	SWITCH, TACTILE (BALANCE L)		C557	1-104-658-11	ELECT 100uF 20%	10V
S112	1-771-410-21	SWITCH, TACTILE (ECHO REPEAT +)		C558	1-126-947-11	ELECT 47uF 20%	35V
S113	1-771-410-21	SWITCH, TACTILE (ECHO REPEAT -)		C561	1-162-815-11	CERAMIC 47PF 5%	500V
S114	1-771-410-21	SWITCH, TACTILE (ECHO DELAY +)		C562	1-162-815-11	CERAMIC 47PF 5%	500V
S115	1-771-410-21	SWITCH, TACTILE (ECHO DELAY -)		C563	1-128-813-11	CERAMIC 220PF 5%	50V
S121	1-771-410-21	SWITCH, TACTILE (D.B.F.B.)		C566	1-136-157-00	FILM 0.022uF 5%	50V
S122	1-771-410-21	SWITCH, TACTILE (MUTING)		C801	1-135-798-11	CERAMIC 0.22uF	50V
S123	1-771-410-21	SWITCH, TACTILE (SPEAKERS (OFF/A/B/A+B))		C802	1-135-798-11	CERAMIC 0.22uF	50V
S124	1-771-410-21	SWITCH, TACTILE (BALANCE R)		C803	1-126-936-11	ELECT 3300uF 20%	16V
*****				C806	1-126-947-11	ELECT 47uF 20%	35V
A-1216-809-A	MAIN BOARD, COMPLETE			C807	1-126-947-11	ELECT 47uF 20%	35V
	*****			C808	1-126-947-11	ELECT 47uF 20%	35V
7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3			C811	1-136-497-81	FILM 0.1uF 5%	50V
		< CAPACITOR >		C812	1-136-497-81	FILM 0.1uF 5%	50V
C400	1-127-888-11	CERAMIC 0.1uF 10%	50V	C813	1-100-968-11	ELECT 4700uF 20%	63V
C402	1-126-964-11	ELECT 10uF 20%	50V	C814	1-100-968-11	ELECT 4700uF 20%	63V
C403	1-128-813-11	CERAMIC 220PF 5%	50V	C815	1-128-582-11	ELECT 10uF 20%	100V
C404	1-128-813-11	CERAMIC 220PF 5%	50V	C816	1-128-582-11	ELECT 10uF 20%	100V
C421	1-126-963-11	ELECT 4.7uF 20%	50V	C821	1-127-888-11	CERAMIC 0.1uF 10%	50V
C422	1-126-963-11	ELECT 4.7uF 20%	50V	C822	1-127-888-11	CERAMIC 0.1uF 10%	50V
C423	1-126-963-11	ELECT 4.7uF 20%	50V	C823	1-126-947-11	ELECT 47uF 20%	35V
C424	1-126-963-11	ELECT 4.7uF 20%	50V	C824	1-126-947-11	ELECT 47uF 20%	35V
C425	1-126-963-11	ELECT 4.7uF 20%	50V	C881	1-126-934-11	ELECT 220uF 20%	16V
C426	1-126-963-11	ELECT 4.7uF 20%	50V	C882	1-126-964-11	ELECT 10uF 20%	50V
C431	1-126-964-11	ELECT 10uF 20%	50V	CC11	1-127-876-11	CERAMIC 0.01uF 10%	50V
C432	1-126-964-11	ELECT 10uF 20%	50V	CC12	1-127-876-11	CERAMIC 0.01uF 10%	50V
C433	1-126-961-11	ELECT 2.2uF 20%	50V	CC14	1-127-876-11	CERAMIC 0.01uF 10%	50V
C434	1-126-961-11	ELECT 2.2uF 20%	50V	CC15	1-127-876-11	CERAMIC 0.01uF 10%	50V
C435	1-126-961-11	ELECT 2.2uF 20%	50V			< CONNECTOR >	
C436	1-126-961-11	ELECT 2.2uF 20%	50V	CN503	1-784-923-11	PIN, CONNECTOR 7P	
C446	1-126-963-11	ELECT 4.7uF 20%	50V	CN504	1-779-978-11	PIN, CONNECTOR 3P	
C452	1-126-964-11	ELECT 10uF 20%	50V	CNP501	1-573-847-11	CONNECTOR, BOARD TO BOARD 15P	
C471	1-104-658-11	ELECT 100uF 20%	10V	* CNP502	1-766-715-11	CONNECTOR, BOARD TO BOARD 10P	
C472	1-127-888-11	CERAMIC 0.1uF 10%	50V	* CNP901	1-564-104-00	PIN, CONNECTOR (3.96mm PITCH) 3P	
C481	1-126-964-11	ELECT 10uF 20%	50V	CNP902	1-691-767-11	PLUG (MICRO CONNECTOR) 5P	
C482	1-127-888-11	CERAMIC 0.1uF 10%	50V	CNP916	1-766-200-11	SOCKET, CONNECTOR PIN 5P	
C483	1-126-934-11	ELECT 220uF 20%	16V			< DIODE >	
C484	1-127-888-11	CERAMIC 0.1uF 10%	50V	D501	8-719-991-33	DIODE 1SS133T-77	
C500	1-128-579-11	ELECT 2.2uF 20%	100V	D503	8-719-991-33	DIODE 1SS133T-77	
C501	1-126-963-11	ELECT 4.7uF 20%	50V	D551	8-719-991-33	DIODE 1SS133T-77	
C502	1-128-809-11	CERAMIC 100PF 5%	50V	D603	8-719-991-33	DIODE 1SS133T-77	
C503	1-128-809-11	CERAMIC 100PF 5%	50V	D752	8-719-991-33	DIODE 1SS133T-77	
C504	1-102-233-00	CERAMIC 33PF 10%	500V	D801	8-719-986-46	DIODE HZS20-1LTA	
C506	1-107-583-11	CERAMIC 3PF 0.25PF	500V	D802	8-719-068-28	DIODE HZ6.8BP-TK	
C507	1-104-658-11	ELECT 100uF 20%	10V	D804	6-500-522-11	DIODE 10EDB40-TA2B5	
C508	1-126-947-11	ELECT 47uF 20%	35V	D805	6-500-522-11	DIODE 10EDB40-TA2B5	
C511	1-162-815-11	CERAMIC 47PF 5%	500V	D806	6-500-522-11	DIODE 10EDB40-TA2B5	
C512	1-162-815-11	CERAMIC 47PF 5%	500V	D807	6-500-522-11	DIODE 10EDB40-TA2B5	
C513	1-128-813-11	CERAMIC 220PF 5%	50V	D811	8-719-072-05	DIODE RBV-602LF-A	
				D821	8-719-043-76	DIODE AK04V1	

TA-DK2

MAIN

Ref. No.	Part No.	Description	Remark
D881	8-719-991-33	DIODE 1SS133T-77	
D882	8-719-991-33	DIODE 1SS133T-77	
D883	8-719-991-33	DIODE 1SS133T-77	
< IC >			
IC400	6-707-169-01	IC M61542FP	
IC501	6-700-943-01	IC uPC2581V-S	
IC821	8-759-071-48	IC TA7807S	
IC822	8-759-071-47	IC TA79007S	
< JACK >			
J401	1-770-614-11	JACK, PIN 4P (VIDEO 1 AUDIO IN, VIDEO 2 AUDIO IN)	
J402	1-770-614-11	JACK, PIN 4P (DVD AUDIO IN, SA-CD/CD AUDIO IN)	
J403	1-774-785-11	JACK, PIN 1P (SUB WOOFER AUDIO OUT)	
< COIL >			
L501	1-420-872-52	COIL, AIR-CORE	
L551	1-420-872-52	COIL, AIR-CORE	
< TRANSISTOR >			
Q471	8-729-922-37	TRANSISTOR 2SD2144S-TP-UVW	
Q501	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q502	8-729-141-30	TRANSISTOR 2SC3623ATP-LK	
Q505	8-729-042-09	TRANSISTOR 2SA1038S-RSE-TP	
Q506	8-729-042-09	TRANSISTOR 2SA1038S-RSE-TP	
Q508	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q551	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q552	8-729-141-30	TRANSISTOR 2SC3623ATP-LK	
Q555	8-729-042-09	TRANSISTOR 2SA1038S-RSE-TP	
Q556	8-729-042-09	TRANSISTOR 2SA1038S-RSE-TP	
Q560	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q608	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q801	8-729-140-97	TRANSISTOR 2SB734-T-34	
Q881	8-729-042-09	TRANSISTOR 2SA1038S-RSE-TP	
Q882	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q883	8-729-140-84	TRANSISTOR 2SC1841TP-PAFAEA	
< RESISTOR >			
R401	1-247-831-11	CARBON 1K 5% 1/4W	
R402	1-247-831-11	CARBON 1K 5% 1/4W	
R403	1-247-831-11	CARBON 1K 5% 1/4W	
R404	1-247-831-11	CARBON 1K 5% 1/4W	
R406	1-247-807-31	CARBON 100 5% 1/4W	
R407	1-247-807-31	CARBON 100 5% 1/4W	
R451	1-247-831-11	CARBON 1K 5% 1/4W	
R452	1-247-831-11	CARBON 1K 5% 1/4W	
R453	1-247-831-11	CARBON 1K 5% 1/4W	
R454	1-247-831-11	CARBON 1K 5% 1/4W	
R469	1-247-831-11	CARBON 1K 5% 1/4W	
R471	1-249-415-11	CARBON 680 5% 1/4W	
R472	1-247-831-11	CARBON 1K 5% 1/4W	
R473	1-249-421-11	CARBON 2.2K 5% 1/4W	
R500	1-247-863-11	CARBON 22K 5% 1/4W	
R501	1-247-831-11	CARBON 1K 5% 1/4W	
R502	1-249-439-11	CARBON 68K 5% 1/4W	
R503	1-249-422-11	CARBON 2.7K 5% 1/4W	

Ref. No.	Part No.	Description	Remark
R504	1-249-439-11	CARBON 68K 5% 1/4W	
R505	1-249-421-11	CARBON 2.2K 5% 1/4W	
R506	1-249-440-11	CARBON 82K 5% 1/4W	
R507	1-249-414-11	CARBON 560 5% 1/4W	
R508	1-249-405-11	CARBON 100 5% 1/4W F	
R509	1-249-405-11	CARBON 100 5% 1/4W F	
R510	1-234-182-11	ENCAPSULATED COMPONENT 0.22X2 5W	
R511	1-247-847-11	CARBON 4.7K 5% 1/4W	
R512	1-240-855-81	CARBON 6.2K 5% 1/4W F	
R513	1-249-419-11	CARBON 1.5K 5% 1/4W	
R514	1-249-431-11	CARBON 15K 5% 1/4W	
R520	1-249-439-11	CARBON 68K 5% 1/4W	
R521	1-249-393-11	CARBON 10 5% 1/4W F	
R522	1-247-871-11	CARBON 47K 5% 1/4W	
R523	1-249-389-11	CARBON 4.7 5% 1/4W F	
R524	1-249-404-00	CARBON 82 5% 1/4W F	
R525	1-249-421-11	CARBON 2.2K 5% 1/4W	
R551	1-247-831-11	CARBON 1K 5% 1/4W	
R552	1-249-439-11	CARBON 68K 5% 1/4W	
R553	1-249-422-11	CARBON 2.7K 5% 1/4W	
R554	1-249-439-11	CARBON 68K 5% 1/4W	
R555	1-249-421-11	CARBON 2.2K 5% 1/4W	
R556	1-249-440-11	CARBON 82K 5% 1/4W	
R557	1-249-414-11	CARBON 560 5% 1/4W	
R558	1-249-405-11	CARBON 100 5% 1/4W F	
R559	1-249-405-11	CARBON 100 5% 1/4W F	
R560	1-234-182-11	ENCAPSULATED COMPONENT 0.22X2 5W	
R561	1-247-847-11	CARBON 4.7K 5% 1/4W	
R562	1-240-855-81	CARBON 6.2K 5% 1/4W F	
R563	1-249-419-11	CARBON 1.5K 5% 1/4W	
R564	1-249-431-11	CARBON 15K 5% 1/4W	
R570	1-249-439-11	CARBON 68K 5% 1/4W	
R571	1-249-393-11	CARBON 10 5% 1/4W F	
R572	1-247-871-11	CARBON 47K 5% 1/4W	
R573	1-249-389-11	CARBON 4.7 5% 1/4W F	
R624	1-249-404-00	CARBON 82 5% 1/4W F	
R625	1-249-421-11	CARBON 2.2K 5% 1/4W	
R780	1-247-847-11	CARBON 4.7K 5% 1/4W	
R782	1-247-879-11	CARBON 100K 5% 1/4W	
R783	1-247-879-11	CARBON 100K 5% 1/4W	
R802	1-249-409-11	CARBON 220 5% 1/4W F	
R803	1-249-389-11	CARBON 4.7 5% 1/4W F	
R804	1-249-429-11	CARBON 10K 5% 1/4W	
R806	1-247-863-11	CARBON 22K 5% 1/4W	
R815	1-249-381-11	CARBON 1 5% 1/4W F	
R816	1-249-381-11	CARBON 1 5% 1/4W F	
R881	1-247-871-11	CARBON 47K 5% 1/4W	
R882	1-249-429-11	CARBON 10K 5% 1/4W	
R883	1-249-427-11	CARBON 6.8K 5% 1/4W	
R884	1-249-436-11	CARBON 39K 5% 1/4W	
R885	1-247-831-11	CARBON 1K 5% 1/4W	
△ R910	1-243-635-11	FUSIBLE 0.33 5% 1/2W F	
RR11	1-249-393-11	CARBON 10 5% 1/4W F	
RR12	1-249-393-11	CARBON 10 5% 1/4W F	
RR14	1-249-393-11	CARBON 10 5% 1/4W F	
RR15	1-249-393-11	CARBON 10 5% 1/4W F	

MAIN

MIC AMP

MIC TONE

Ref. No.	Part No.	Description	Remark
< RELAY >			
RY501	1-755-416-12	RELAY	
RY601	1-755-416-12	RELAY	
RY702	1-755-267-11	RELAY	
< TERMINAL BOARD >			
TM601	1-694-785-11	TERMINAL BOARD (4P) (SPEAKERS FRONT A)	
TM604	1-694-785-11	TERMINAL BOARD (4P) (SPEAKERS FRONT B)	

MIC AMP BOARD			

< CAPACITOR >			
C2000	1-162-974-11	CERAMIC CHIP 0.01uF	50V
C2001	1-124-257-00	ELECT 2.2uF	20% 50V
C2002	1-115-416-11	CERAMIC CHIP 0.001uF	5% 25V
C2004	1-124-465-00	ELECT 0.47uF	20% 50V
C2005	1-162-962-11	CERAMIC CHIP 470PF	10% 50V
C2026	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C2027	1-124-584-00	ELECT 100uF	20% 10V
C2030	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C2032	1-124-261-00	ELECT 10uF	20% 25V
C2050	1-162-974-11	CERAMIC CHIP 0.01uF	50V
C2051	1-124-257-00	ELECT 2.2uF	20% 50V
C2052	1-115-416-11	CERAMIC CHIP 0.001uF	5% 25V
C2054	1-124-465-00	ELECT 0.47uF	20% 50V
C2055	1-162-962-11	CERAMIC CHIP 470PF	10% 50V
C2095	1-162-974-11	CERAMIC CHIP 0.01uF	50V
< CONNECTOR >			
CNP100	1-784-922-11	PIN, CONNECTOR 5P	
< IC >			
IC2001	8-759-710-97	IC NJM4565M-D	
< JACK >			
J2000	1-815-313-21	JACK (KARAOKE MIC 1)	
J2050	1-815-313-21	JACK (KARAOKE MIC 2)	
< RESISTOR >			
R2000	1-216-864-11	SHORT CHIP 0	
R2001	1-216-845-11	METAL CHIP 100K	5% 1/10W
R2002	1-216-821-11	METAL CHIP 1K	5% 1/10W
R2003	1-216-845-11	METAL CHIP 100K	5% 1/10W
R2004	1-216-825-11	METAL CHIP 2.2K	5% 1/10W
R2005	1-216-837-11	METAL CHIP 22K	5% 1/10W
R2016	1-216-829-11	METAL CHIP 4.7K	5% 1/10W
R2017	1-216-828-11	METAL CHIP 3.9K	5% 1/10W
R2050	1-216-864-11	SHORT CHIP 0	
R2051	1-216-845-11	METAL CHIP 100K	5% 1/10W
R2052	1-216-821-11	METAL CHIP 1K	5% 1/10W
R2053	1-216-845-11	METAL CHIP 100K	5% 1/10W
R2054	1-216-825-11	METAL CHIP 2.2K	5% 1/10W
R2055	1-216-837-11	METAL CHIP 22K	5% 1/10W

Ref. No.	Part No.	Description	Remark
A-1216-815-A MIC TONE BOARD, COMPLETE			

< CAPACITOR >			
C2009	1-124-257-00	ELECT 2.2uF	20% 50V
C2010	1-164-245-11	CERAMIC CHIP 0.015uF	10% 25V
C2011	1-124-257-00	ELECT 2.2uF	20% 50V
C2012	1-162-965-11	CERAMIC CHIP 0.0015uF	10% 50V
C2013	1-115-467-11	CERAMIC CHIP 0.22uF	10% 10V
C2014	1-164-217-11	CERAMIC CHIP 150PF	5% 50V
C2015	1-164-227-11	CERAMIC CHIP 0.022uF	10% 25V
C2016	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C2017	1-124-257-00	ELECT 2.2uF	20% 50V
C2018	1-124-257-00	ELECT 2.2uF	20% 50V
C2019	1-124-257-00	ELECT 2.2uF	20% 50V
C2021	1-124-257-00	ELECT 2.2uF	20% 50V
C2023	1-100-566-11	CERAMIC CHIP 0.1uF	10% 25V
C2033	1-126-160-11	ELECT 1uF	20% 50V
C2034	1-100-566-11	CERAMIC CHIP 0.1uF	10% 25V
C2035	1-124-584-00	ELECT 100uF	20% 10V
C2036	1-162-968-11	CERAMIC CHIP 0.0047uF	10% 50V
C2037	1-124-261-00	ELECT 10uF	20% 25V
C2038	1-162-962-11	CERAMIC CHIP 470PF	10% 50V
C2039	1-100-566-11	CERAMIC CHIP 0.1uF	10% 25V
C2040	1-100-566-11	CERAMIC CHIP 0.1uF	10% 25V
C2041	1-100-566-11	CERAMIC CHIP 0.1uF	10% 25V
C2044	1-100-566-11	CERAMIC CHIP 0.1uF	10% 25V
C2045	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
C2046	1-162-968-11	CERAMIC CHIP 0.0047uF	10% 50V
C2047	1-125-837-11	CERAMIC CHIP 1uF	10% 6.3V
C2048	1-126-160-11	ELECT 1uF	20% 50V
C2057	1-162-962-11	CERAMIC CHIP 470PF	10% 50V
C2059	1-124-257-00	ELECT 2.2uF	20% 50V
C2060	1-164-245-11	CERAMIC CHIP 0.015uF	10% 25V
C2061	1-124-257-00	ELECT 2.2uF	20% 50V
C2062	1-162-965-11	CERAMIC CHIP 0.0015uF	10% 50V
C2063	1-115-467-11	CERAMIC CHIP 0.22uF	10% 10V
C2064	1-164-217-11	CERAMIC CHIP 150PF	5% 50V
C2065	1-164-227-11	CERAMIC CHIP 0.022uF	10% 25V
C2066	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C2067	1-124-257-00	ELECT 2.2uF	20% 50V
C2068	1-124-257-00	ELECT 2.2uF	20% 50V
C2069	1-124-257-00	ELECT 2.2uF	20% 50V
C2072	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
C2115	1-124-257-00	ELECT 2.2uF	20% 50V
C2180	1-162-927-11	CERAMIC CHIP 100PF	5% 50V
C2181	1-162-927-11	CERAMIC CHIP 100PF	5% 50V
C2182	1-162-966-11	CERAMIC CHIP 0.0022uF	10% 50V
C2228	1-100-566-11	CERAMIC CHIP 0.1uF	10% 25V
C2229	1-124-584-00	ELECT 100uF	20% 10V
< CONNECTOR >			
CNP101	1-766-739-11	CONNECTOR, BOARD TO BOARD 8P	
CNP102	1-766-739-11	CONNECTOR, BOARD TO BOARD 8P	
< DIODE >			
D102	8-719-046-39	LED SEL5821A-TP15 (KARAOKE ON/OFF)	

TA-DK2

MIC TONE **STANDBY**

Ref. No.	Part No.	Description	Remark
D103	8-719-046-39	LED SEL5821A-TP15 (KARAOKE VOCAL SELECT)	
D104	8-719-046-39	LED SEL5821A-TP15 (KARAOKE SCORE)	
D2100	8-719-069-54	DIODE UDZSTE-175.1B	
< IC >			
IC2000	6-709-163-01	IC M5243BFP09-CF0J	
IC2003	8-759-710-97	IC NJM4565M-D	
IC2004	8-759-710-97	IC NJM4565M-D	
IC2010	6-710-713-01	IC M65831AFP	
< JUMPER RESISTOR >			
JR2114	1-216-864-11	SHORT CHIP 0	
< TRANSISTOR >			
Q2002	8-729-055-10	FET 2SK3378ENTL	
Q2003	8-729-055-10	FET 2SK3378ENTL	
< RESISTOR >			
R101	1-216-813-11	METAL CHIP 220 5% 1/10W	
R102	1-216-815-11	METAL CHIP 330 5% 1/10W	
R103	1-216-817-11	METAL CHIP 470 5% 1/10W	
R104	1-216-819-11	METAL CHIP 680 5% 1/10W	
R105	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R162	1-216-811-11	METAL CHIP 150 5% 1/10W	
R163	1-216-814-11	METAL CHIP 270 5% 1/10W	
R164	1-216-814-11	METAL CHIP 270 5% 1/10W	
R2006	1-216-835-11	METAL CHIP 15K 5% 1/10W	
R2007	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R2008	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R2009	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R2010	1-216-845-11	METAL CHIP 100K 5% 1/10W	
R2011	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R2012	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R2020	1-216-857-11	METAL CHIP 1M 5% 1/10W	
R2028	1-216-835-11	METAL CHIP 15K 5% 1/10W	
R2035	1-216-803-11	METAL CHIP 33 5% 1/10W	
R2039	1-216-803-11	METAL CHIP 33 5% 1/10W	
R2040	1-216-837-11	METAL CHIP 22K 5% 1/10W	
R2041	1-216-835-11	METAL CHIP 15K 5% 1/10W	
R2043	1-216-835-11	METAL CHIP 15K 5% 1/10W	
R2044	1-216-827-11	METAL CHIP 3.3K 5% 1/10W	
R2045	1-216-835-11	METAL CHIP 15K 5% 1/10W	
R2046	1-216-813-11	METAL CHIP 220 5% 1/10W	
R2049	1-216-837-11	METAL CHIP 22K 5% 1/10W	
R2056	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R2058	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R2060	1-216-845-11	METAL CHIP 100K 5% 1/10W	
R2061	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R2069	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R2078	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R2079	1-216-836-11	METAL CHIP 18K 5% 1/10W	
R2080	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R2113	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R2115	1-216-815-11	METAL CHIP 330 5% 1/10W	
R2116	1-216-815-11	METAL CHIP 330 5% 1/10W	
R2218	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R2219	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	

Ref. No.	Part No.	Description	Remark
< VARIABLE RESISTOR >			
RV2000	1-227-735-11	RES, VAR, CARBON 10K (KARAOKE MIC 1 VOL)	
RV2001	1-227-737-11	RES, VAR, CARBON 100K (KARAOKE LOW (MIC 1 TONE))	
RV2002	1-227-737-11	RES, VAR, CARBON 100K (KARAOKE MID (MIC 1 TONE))	
RV2003	1-227-737-11	RES, VAR, CARBON 100K (KARAOKE HIGH (MIC 1 TONE))	
RV2050	1-227-735-11	RES, VAR, CARBON 10K (KARAOKE MIC 2 VOL)	
RV2051	1-227-737-11	RES, VAR, CARBON 100K (KARAOKE LOW (MIC 2 TONE))	
RV2052	1-227-737-11	RES, VAR, CARBON 100K (KARAOKE MID (MIC 2 TONE))	
RV2053	1-227-737-11	RES, VAR, CARBON 100K (KARAOKE HIGH (MIC 2 TONE))	
RV2109	1-227-741-11	RES, VAR, CARBON 50K (KARAOKE ECHO LEVEL (MIC))	
< SWITCH >			
S100	1-771-410-21	SWITCH, TACTILE (I/⏻)	
S101	1-771-410-21	SWITCH, TACTILE (DISPLAY)	
S102	1-771-410-21	SWITCH, TACTILE (KARAOKE KEY CONTROL #)	
S103	1-771-410-21	SWITCH, TACTILE (KARAOKE KEY CONTROL b)	
S104	1-771-410-21	SWITCH, TACTILE (KARAOKE SCORE)	
S105	1-771-410-21	SWITCH, TACTILE (KARAOKE VOCAL SELECT)	
S106	1-771-410-21	SWITCH, TACTILE (KARAOKE ON/OFF)	
< VIBRATOR >			
X2101	1-781-853-21	VIBRATOR, CERAMIC (2MHz)	

STANDBY BOARD			

	1-533-217-41	HOLDER, FUSE	
< CAPACITOR >			
C901	1-135-798-11	CERAMIC 0.22uF 50V	
C902	1-135-798-11	CERAMIC 0.22uF 50V	
C911	1-135-798-11	CERAMIC 0.22uF 50V	
C912	1-135-798-11	CERAMIC 0.22uF 50V	
C913	1-126-959-11	ELECT 0.47uF 20% 50V	
C914	1-126-936-11	ELECT 3300uF 20% 16V	
C915	1-126-943-11	ELECT 2200uF 20% 25V	
C916	1-126-942-61	ELECT 1000uF 20% 25V	
< CONNECTOR >			
CNP801	1-784-922-11	PIN, CONNECTOR 5P	
CNP900	1-564-321-00	PIN, CONNECTOR (3.96mm PITCH) 2P	
CNP903	1-564-506-11	PLUG, CONNECTOR 3P	
* CNP904	1-565-792-11	PIN, CONNECTOR (3.96mm PITCH) 2P	
CNP906	1-766-203-11	PLUG, CONNECTOR PIN (PC BOARD) 5P	
< DIODE >			
D901	8-719-991-33	DIODE 1SS133T-77	
D910	6-500-522-11	DIODE 10EDB40-TA2B5	
D911	6-500-522-11	DIODE 10EDB40-TA2B5	
D912	6-500-522-11	DIODE 10EDB40-TA2B5	
D913	6-500-522-11	DIODE 10EDB40-TA2B5	

STANDBY

VOLUME

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D914	8-719-991-33	DIODE 1SS133T-77				ACCESSORIES	
D915	8-719-991-33	DIODE 1SS133T-77				*****	
D920	6-500-522-11	DIODE 10EDB40-TA2B5					
D921	6-500-522-11	DIODE 10EDB40-TA2B5		1-480-024-11		STANDARD COMMANDER (RM-AAU011)	
D922	6-500-522-11	DIODE 10EDB40-TA2B5				(including BATTERY CASE LID)	
				2-894-123-11		MANUAL, INSTRUCTION (ENGLISH)	
D923	6-500-522-11	DIODE 10EDB40-TA2B5		2-894-123-21		MANUAL, INSTRUCTION	
						(TRADITIONAL CHINESE)	
		< TRANSISTOR >		2-894-123-31		MANUAL, INSTRUCTION (MALAY)	
Q901	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q911	8-729-119-78	TRANSISTOR 2SC2785-HFE					
		< RESISTOR >					
△ R810	1-243-634-11	FUSIBLE 0.22 5% 1/2W F					
△ R812	1-243-634-11	FUSIBLE 0.22 5% 1/2W F					
R903	1-247-871-11	CARBON 47K 5% 1/4W					
R904	1-247-847-11	CARBON 4.7K 5% 1/4W					
R905	1-249-381-11	CARBON 1 5% 1/4W F					
R911	1-247-871-11	CARBON 47K 5% 1/4W					
R912	1-249-435-11	CARBON 33K 5% 1/4W					
R913	1-249-429-11	CARBON 10K 5% 1/4W					
		< RELAY >					
△ RY901	1-755-439-11	RELAY					
		< TRANSFORMER >					
△ T902	1-443-517-11	TRANSFORMER, POWER (SUB)					

		VOLUME BOARD					

		< CONNECTOR >					
* CN105	1-564-518-11	PLUG, CONNECTOR 3P					
		< ROTARY ENCODER >					
RV102	1-418-725-41	ENCODER, ROTARY (12 TYPE)					
		(MASTER VOLUME)					

		MISCELLANEOUS					

61	1-829-034-11	WIRE (FLAT TYPE) (25 CORE)					
△ 101	1-777-071-83	CORD, POWER					
△ F901	1-532-464-33	FUSE (T2.5AL/250V)					
Q503	6-702-390-01	TRANSISTOR MN2488-OPY-MK					
Q504	6-702-391-01	TRANSISTOR MP1620-OPY-MK					
Q553	6-702-390-01	TRANSISTOR MN2488-OPY-MK					
Q554	6-702-391-01	TRANSISTOR MP1620-OPY-MK					
△ T901	1-443-914-11	TRANSFORMER, POWER (MAIN)					

REVISION HISTORY

Clicking the version allows you to jump to the revised page.

Also, clicking the version at the upper on the revised page allows you to jump to the next revised page.

[illegible]